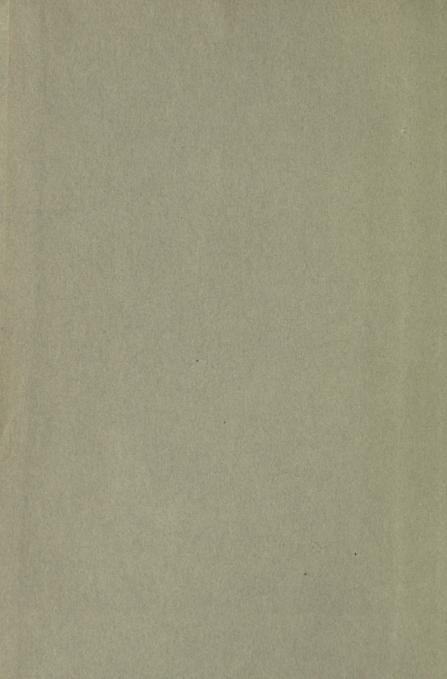


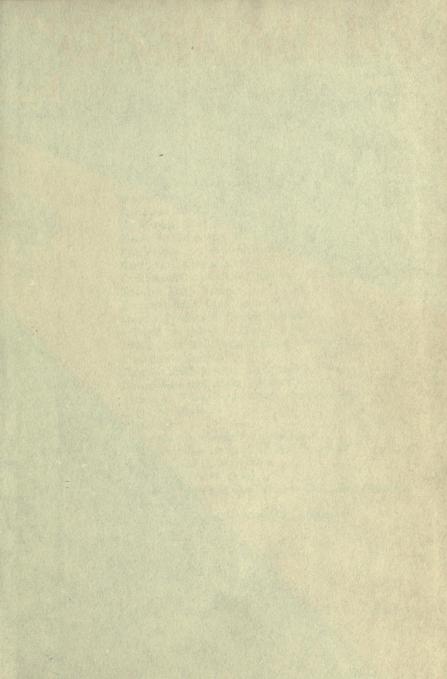
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# ONSUMERS' ODIGEST

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Vol. I · JANUARY, 1937 · No. 1

PRICE 25c

# The Consumers' Digest

Published monthly at 80 Lafayette St., New York, N. Y.

by

CONSUMERS' RESEARCH, INC.

Editorial Office: Washington, N. J.

25c a copy. The American News Company, sole distributors.

F. J. SCHLINK
Editor-in-Chief

J. B. MATTHEWS

Managing Editor

M. C. PHILLIPS
Associate Editor

Technical Editors: R. JOYCE and E. W. CHENEY.

Address all communications to *The Consumers' Digest*, Washington, N. J.

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# Coming!

in the February number of

# THE CONSUMERS' DIGEST

SEEDS FOR SPRING PLANTING FOUNTAIN PENS

Ways and Means of Getting Fresh Coffee

GASOLINES

THE FOOD BUDGET

WASHING MACHINES

CANNED DOG FOOD

BLANKETS AND COMFORTERS

DANGERS FROM ELECTRIC HEATING PADS GULLIBLE'S TRAVELS—ANOTHER LETTER

and many other articles containing advice on wise buying and invaluable information for consumers

# Consumers' Digest

The enlightened consumer is a necessary encouragement to merchandising integrity.

# ANTIFREEZE SOLUTIONS FOR AUTOMOBILE RADIATORS

HILE a perfect antifreeze has not yet been found, the most practical ones are certain alcohols of which ethyl (grain) alcohol and ethylene glycol are probably the best so far used. Although ethyl alcohol evaporates far more rapidly than ethylene glycol and must be replenished as evaporation occurs, a small car which has no leaks in hose, pump, or radiator, and which does not overheat through hard driving or hard climbing on warm days, can with average driving go through a northern winter with three gallons of 188 proof denatured ethyl alcohol costing about 65 cents per gallon. As with the more expensive and more permanent antifreezes, though somewhat less effectively. the cost for succeeding years may be reduced by withdrawing the solution from the radiator at

the end of the winter season and saving it in corked cans or jars for subsequent use. In case of such re-use, the diluteness of the alcohol-water mixture, when it is put to use again, should be carefully tested with a hydrometer, in order that the amount of alcohol present may not unwittingly have become reduced below the point of safety. Alcohol can, we believe, be used more safely than glycerin or ethylene glycol in radiators which have had small leaks repaired with such powders and liquids (flaxseed meal or flaxseed extract) as are often used to seal off bad joints in the radiator or small cracks in the engine water jacket. There is an advantage in adding a half-andhalf mixture of ethyl alcohol with ethylene glycol to the radiator water instead of ethyl alcohol alone. This mixture is not only cheaper than ethylene glycol and water but it has the important advantage that a higher temperature (obtained by a higher thermostat adjustment) can be used than when ethyl alcohol and water alone are used in the radiator. The higher temperature for the cooling system gives greater efficiency in gasoline consumption and helps to maintain engine efficiency for a longer period and increases the engine's life. A car heater of the hot-water type will be more effective at the higher jacket water temperature. Denatured ethyl alcohol used for antifreeze may be either "completely denatured" or "specially denatured." Methanol (5 per cent by volume) may be used as the denaturant for the latter but not for the former. and if present in amounts greater than 15 percent must be so stated on the label. Both types of denatured alcohol are recommended with the understanding that care should be taken to avoid, so far as possible, bodily contact with them and inhalation of their vapors. Ethylene glycol (Eveready Prestone), although it gives "permanent" radiator protection, is expensive. Furthermore, it requires care to ensure that there are no leaks in the cooling system, since it can leak from a system that appears to be quite tight for water. Glycerin is another "permanent" antifreeze but, like ethyl alcohol and glycol, is expensive and will leak easily from a system that would otherwise appear to be quite watertight. It is rather more likely than the

other substances described to cause corrosion of parts of the cooling system. Neither glycerin, because of its high viscosity at low temperatures, nor alcohol because of its low heat capacity and high volatility should be used in thermo-syphon (nonpumping type) cooling systems. Methanol, which is the modern synthetic wood alcohol, is the kind of alcohol one usually gets when asking for denatured alcohol for antifreeze purposes. It is cheaper, but wholly unsatisfactory because of its low boiling point and is extremely poisonous. Even inhalation of its fumes, often noticeable in the car when driving in winter, is fraught with a hazard that must not be taken lightly. In order to favor the low-boiling point of methanol, automobile thermostats are commonly adjusted to give lower engine operating temperatures than demanded for the efficient operation of the engine and of the most favored types of car heaters.

Commercial brands of antifreeze solutions are, of course, often given a trade name, which does not reveal the character of the liquid itself. Usually they consist of one of the substances named above, or a mixture of two of them, with perhaps a little oil or other rust inhibitor (which will probably on the average be of small value in that respect) and some coloring matter added. The solutions of salts, such as calcium chloride, which used to be widely sold, cause such prompt and extensive radiator and engine damage that their sale has been greatly reduced. Kerosene, sometimes used, is hard on the rubber hose and involves serious fire hazard in case of an engine's overheating. Since there are on the market so many solutions which must be avoided, consumers should not assume the risk of purchasing antifreezes whose constituents are unknown.

The following listings are from results of tests recently made for Consumers' Research. Price ratings are based on the cost of protection for a five-gallon radiator down to 0°F, i.e., the volume of antifreeze needed multiplied by the cost per unit of volume, without attempting to allow for cost of renewal of the liquid to compensate for evaporation, leakage, and other losses. Such losses vary widely with climate, customary conditions of operation of the car, thermostat adjustment, degree of dilution of the antifreeze liquid, frequency of occurrence of warm days during the normally cold season, etc. Prices, of course, vary somewhat with locality, dealer, and quantity purchased. A "five-gallon system" corresponds approximately to the cooling water system of the Ford V-8, the Packard 8 and the Hudson 8 cars.

From eleven brands of antifreeze solutions which were tested we recommend the four which follow.

# RECOMMENDED

Protectol (Carbide & Carbon Chemicals Corp., 30 E. 42 St., N.Y.C.) 65c per gal. Cost of protection to 0°F for 5-gal system, \$1.25. Found to be mainly denatured ethyl alcohol.

Super Pyro (U. S. Industrial Alcohol Co., 60 E. 42 St., N.Y.C.) \$1 per gal. Cost of protection of 0°F for 5-gal system, \$1.75. Mainly denatured ethyl alcohol.

Mobil Freezone (Socony-Vacuum Oil Co., Inc., 26 B'way, N.Y.C.) \$1 per gal. Cost of protection to 0°F for 5-gal system, \$1.75. Contains some methanol as a denaturant, and a little kerosene as a rust preventive. This listing does not refer to any variant of this brand labelled to contain "over 60% methanol."

Eveready Prestone (National Carbon Co., 30 E. 42 St., N.Y.C.) \$1.60 for ½ gal. Cost of protection to 0°F for 5-gal system, \$5.20. Mainly ethylene glycol with a little added oil.

Consumption absolute is the end, crown and perfection of production; and wise consumption is a far more difficult art than wise production. It is therefore the manner and issue of consumption which are the real tests of production. Production does not consist in things laboriously made but in things serviceably consumable. . . . For as consumption is the end and aim of production, so life is the end and aim of consumption.

—From John Ruskin's essay "Unto This Last."

# WINTER LUBRICATING OILS

ODERN high-compression engines with their close-fitting parts are giving automobile owners an increasing amount of trouble during the winter months. It has at last been recognized by the trade that most of the so-called light (thin) oils, such as S.A.E. 10 and S.A.E. 20, do not provide a satisfactory solution of the problem, and accordingly two new oils have appeared on the market. They are known as 10-W and 20-W oils and are to replace the former S.A.E. 10 and S.A.E. 20 oils. According to an article in Automotive Industries, tests shown that these new winter lubricants will provide adequate lubrication under severe driving conditions. The S.A.E. Journal for November, 1933, carried an of these new announcement grades, which may be of further assistance to automobile owners. We quote:

"S.A.E. 30 oil is recommended as heretofore for use during the summer months and in territories where the minimum temperature does not fall below 32 deg. fahr. The new 20-W oil is recommended for use in territories where the minimum temperature at which the engine is to be started will be below 32 deg. fahr., but where the minimum temperature does not fall below 0 deg. fahr. For territories

where the minimum temperature at which the engine is to be started is below zero, but is not below 15 deg. below zero, the new 10-W is recommended. For temperatures lower than 15 deg. below zero 10-W should be diluted with 10 per cent kerosene."

It was to be hoped that the qualities of these new oils were such as to eliminate winter starting troubles and the continuous and severe drain on the storage battery which leaves many an automobile owner helpless on frigid mornings because his battery is unable to turn his engine over or turn it over long enough or fast enough to get it started. Some of the new 10-W and 20-W grades of oils included in this test will no doubt reduce starting difficulties and give adequate lubrication, but our recent analysis of these new winter oils showed, with respect to some, no essential improvement over the old S.A.E. 10 and S.A.E. 20 oils. In fact, a few of the "new" oils failed to come up to the usual standard set for automobile lubricating oils.

The amount of the change of viscosity or fluidity with temperature is considered, as in previous tests, to be the most important characteristic of an oil. The less this change the better. A good lubricating oil will not lose too much in body as its temperature rises, i.e., it will not become too thin at operating temperatures of the engine. Special

Society of Automotive Engineers.

Copyright 1935, 1936, Consumers' Research, Inc., Washington, N. J. (Consumers' Research Bulletin, January '35 and March '36)

attention is called to the Uniflo oil listed below. This oil had the viscosity of S.A.E. 10 oil at subzero temperatures, while at operating temperatures it maintained the viscosity characteristic of S.A.E. 30 oil-both desirable properties for a winter oil. It is not yet known whether the special properties of Uniflo oil are accompanied by any other characteristics that may be disadvantageous in use, either to the condition or performance of the engine, or in other ways. It should be remembered that consumption of both oil and gasoline goes up rapidly with increase in speed and that the use of lighter oils will further increase oil consumption.

Buy your oil in 2 to 50 gallon

lots, obtaining one of the brands here recommended. It is to be noted that variations in quality of the same brand from year to vear or between different S.A.E. oils of the same brand are not uncommon.

From thirty-nine brands of winter lubricating oils tested we recommend the ten which follow.

### RECOMMENDED

10-W oils:

Mobiloil Arctic; Oilzum, Light Winter; Sinclair Penn., Light; Iso Vis. Light.

20-W oils:

Uniflo: Iso Vis. Medium; Koolmotor: Alemite: Tiolene: Sinclair Penn.

Fascism the Consumer

There are undoubtedly many people in this country who think that fascism is something concerned wholly with dictators and political systems. One of its chief but seldom publicized characteristics is the lowering of consumers' standards of living. Of course, in the preliminary stages of fascism, its leaders always promise the fullness of life to the people; but as the program unfolds, it is found that its fundamental and all-pervading object is to maintain the top

man on top and to make sure that the bottom man will be discouraged from protest or revolt. The lowered and declining scale of living in Italy has long been a matter of public comment in the liberal press and the newspapers. The following example from Nazi Germany is a brief description of what fascism is doing to consumers' goods in that country.

"Already, food adulteration is going on, under force of necessity, on a grand scale. Even bread is adulterated. By government order, all flour must be one-third potato starch, or 'shorts.' Clothing, too, is being reduced in quality. All wool cloth must contain shoddy." ("How Long

Can Hitler Last?" by Fred C. Kelly in Today.)

# FOR EASY STARTING OF AUTOMOBILES IN COLD WEATHER

T IS GENERALLY CONCEDED that the cars of today are capable of being much more easily started when cold than the cars of a few years ago, but even the modern cars with automatic chokes and other gadgets can cause trouble or be harmed by the non-observance of certain precautions in starting up in zero weather. The heaviest load on a car's storage battery is that of cranking the engine, and in very cold weather even a fully charged battery will seldom withstand more than a very short period of continuous or repeated cranking of the engine. It can safely be said that a large majority of motorists do not follow the correct and safest procedure for easy starting. The following suggestions are therefore offered as an aid to the average motorist:

1. It is important that the driver settle himself in the car as comfortably as possible, as the operation of cold weather starting is one that requires his quick coordination and undivided attention to obtain the best results.

2. The hand throttle control should be pulled out or opened so that the throttle will be about one-quarter open.

If the car is equipped with a down draft carburetor and has an accelerating pump, further aid to starting in extremely cold weather can be given by pressing the accelerator pedal down two

or three times. This injects about ½ ounce of gasoline into the manifold and greatly assists starting. For the benefit of those who are not sure if their car has an accelerating pump, the following carburetors are so equipped: Stromberg, Carter, and Ball and Ball. (About 80 per cent of the cars today use one or the other of these carburetors as standard equipment.)

3. In order to relieve the starter of unnecessary load, the clutch pedal should be pushed to the floor and held there until the engine is running steadily and with sufficient energy so that it will not stop or skip explosions. By disengaging the clutch in this way, the starter and the engine, before it begins to fire regularly, will be relieved of the heavy load of rotating certain of the transmission gears, which are imbedded in cold, stiff grease.

4. Pull the choke all the way out.

5. Turn on the ignition and step on the starter. (Advice in newspaper articles and trade literature often advocates not turning on the ignition until after the starter has turned the engine over two or three times to draw the mixture into the cylinders. This fallacy probably dates back to the days when it was not possible to spin the engine with the ignition turned on, without running the risk of the engine's kicking back violently and pos-

sibly giving the person at the hand crank a broken arm or sprained wrist.)

6. As soon as the engine starts, release the starter and push the choke one-half or two-thirds of the way in. If the engine does not start promptly, continued use of the choke while the starter is being rotated may so enrich the mixture in the cylinders that ignition will not take place. Hence, after the choke has been used for a time, further cranking, if necessary, should for a short interval be carried out with the choke pushed back in its normal position. Use of the starter should not be for long, continuous periods, but intermittently; say, for 3 to 5 seconds; in cold weather when the starter is unable to turn the engine over at a normal rate of speed, a somewhat longer period may be necessary.

7. Continue to push in the choke gradually but as fast as can be done without allowing the engine to falter or stall.

8. The engine should then be allowed to run at a fixed throttle, i.e., with the throttle in approximately the same position as in number 2, but the engine should not be permitted to race. If it does, the hand throttle should be pushed in until the engine does not run at high speed.

9. With the transmission remaining in neutral, the clutch pedal should be released quickly. If the engine falters, the clutch pedal should be pushed in again and the engine either allowed to

warm up a bit longer without any load, or the throttle opened a little more to enable the engine to carry the load due to the transmission when the clutch is engaged.

10. As the engine warms up, the engine speed will increase and the throttle should be closed a bit at a time, to prevent the engine's racing, with consequent damage to the car. Racing an engine is always bad but it is considerably more so when the engine is cold.

11. To ensure easy starting it is most important that the distributor points be clean and smooth and that the electrodes of the spark plugs be in good condition and adjusted to the correct gap. The constant jumping of the spark across the points causes burning and pitting; on this account they should be checked periodically, not left until on some very cold day they add to the already serious difficulty of starting the car.

The preceding hints apply to all cars with the exception of those having automatic starter equipment. On cars equipped with the automatic choke mechanism, the instructions in the foregoing as to the manipulation of the choke should be disregarded, but one should not follow the advice sometimes implicit in claims made for the automatic choke: viz., that with an automatic choke one can expect a car to perform at full power immediately, or as one newspaper writer

puts it, "the car moves right off without a moment's hesitation."

It is essential that the engine be always allowed to warm up before it is put to work under load. However, it is most important that at the very first moment possible, the car is moved a sufficient distance so that the car and exhaust pipe are well out of the garage, to avert the extremely serious danger of poisoning or collapse of the driver from carbon monoxide.

If the car is run any distance, or made to climb a hill, with the engine insufficiently warmed up, you are inviting trouble which

will sooner or later end up with the car in the repair shop, long before this would otherwise be necessary. It should be remembered that it is equally as dangerous to overwork a cold engine which is not being adequately lubricated because of the stiff, non-fluid condition of the crankcase oil as it is to run a car at normal temperatures with an insufficient oil supply. A car should not be operated under load, at any speed, or up a hill until the engine is sufficiently warm to run at any throttle opening without use of the choke.

# What Advertising Does and Does Not Do

CRITICS of advertising are sometimes berated as persons who go about with a malicious intent to destroy sacred American institutions. Advertising men, for their own good reasons, like to have consumers, teachers, newspapers, and magazines approach the subject of advertising in a hushed and respectful manner somewhat as a band of tourists might inspect the

sacred precincts of a cathedral.

With advertising per se we have no quarrel. No one can reasonably deny that under the stimulus of advertising there has been an increase in the consumption of many meritorious products and an improvement in the standard of living of those who have used them. It is a characteristic of advertising, however, that it is an effective stimulant to increased consumption of all sorts of consumer goods, meritorious and otherwise. Advertising's basic purpose is entirely satisfied in such increased consumption, i.e., in increased sales of products, but without regard to their comparative quality or the consumer's need for them or safety in their use. Our criticism of advertising practices is directed toward its obvious, and often flagrant, failure to safeguard the consumer's interest in matters of quality, need for the product, its suitability for his uses, and freedom from needless hazard or harm.

# MECHANICAL REFRIGERATORS

II N buying electric refrigerators in 1935, 500,000 women "got a poor trade for their money," according to an article in a recent trade journal. Consumers' Research's previous report on refrigerators in April, 1935, a presentation of tests authorized and paid for by Consumers' Research, which the Electric Refrigeration News has called probably the most comprehensive tests of this type ever attempted," would indicate that 500,000, approximately one-third of the total output, is no overstatement of the number of definitely inferior electric refrigerators sold last year.

It is a pretty safe rule that the more an advertiser talks about "Breath-Taking Beauty," "Foodexes," "Rotorites," "Adjusto-Shelves," and "Touch-a-Bar," the fewer and the less important qualities he can truthfully and fairly claim in respect to efficient and dependable performance, or, it may be, the less he is willing to rely upon the good sense and intelligence of consumers to pro-

vide his sales volume.

It is well for the consumer who likes to spend his money wisely to realize that refrigerator manufacturers produce "economy" models which cost considerably less than the "standard" models and which, in some instances, have only a little less of the "Breath-Taking Beauty" and but slightly fewer gadgets (like the automobiles which lack an

onyx handle gear shift and a three-toned horn). At best there is nothing important which you can get out of a refrigerator except the refrigeration. The existence of the fully practical "economy" or low-priced models is often concealed from the purchaser by the manufacturer and his dealer in order that a model costing only \$150 or \$160 shall not be bought by the consumer who can be persuaded to part with \$20 or \$30 more. In the present new investigation of refrigerators, "economy" and lower-priced models were tested with the exception of the General Electric V-5, a flat top refrigerator, which cost \$10 more than the corresponding one with the monitor top, and the Kelvinator K6-36 which cost \$25 more than KS6-36. If your local dealer has chosen not to display, or tell you about, the "economy" model, do not let him sell you the more expensive one unless you really want it and are willing to pay handsomely for some slight additional features obtained.

The extensive and detailed testing, which was carried out for the previous Consumers' Research report on refrigerators and which inherently required many months, could not be repeated for this report because of the limited time available and the obvious need, on account of the consumers' interest in purchasing at the beginning of the summer, to make the test findings

available as soon as possible after the appearance of the new models. The refrigerators, nevertheless, have been tested for comparative operating economy, refrigerating capacity, electric shock hazard, staining of interior enamel by fruit acids, noise of operation, and maintenance of efficiency during a high-humidity endurance test somewhat shorter than the one previously made. Of the eight refrigerators tested, six were bought by Consumers' Research and tested, while the two Kelvinators were selected and tested by an independent commercial laboratory, believed by Consumers' Research to be honest and competent in the technical matters involved, by methods agreed to in advance by Consumers' Research. In this case, the cost of the Kelvingtor tests and the expense of furnishing the machines, which remained Kelvinator's property, borne by the Kelvinator Corporation and were carried out at Kelvinator's own instance. The eight refrigerators which were tested were found to be on the whole a considerably better lot than those reported on a Differing ago. Consumers' Research's earlier experience, shock hazard was found in only two of the refrigerators tested in this new series. None of the interior enamel was stained or significantly corroded by lemon juice, grape juice, or by a 5 per cent solution of acetic acid. While some refrigerators had greater refrigerating capacity (i.e., cold-maintaining ability under severe conditions) than others, all of those tested were judged to have sufficient capacity for any conditions likely to be met with in practical use. (External temperatures during the test ranged from 60°F to 110°F.)

Prices given in the listings are approximate retail prices, which vary slightly from locality to locality. It must be understood that the values of energy consumption are approximate; they cannot be computed with a high degree of precision on account of differing practical conditions of operation; they vary also with the age of the refrigerator. In calculations of operating costs, electricity rate has been assumed to be 6c per kwh.

Of the eight refrigerators tested, we recommend four.

# RECOMMENDED

Frigidaire DRS-5-36 (Frigidaire Corp., Dayton, Ohio) 5.1 cu ft capacity, \$144.50. Operating economy maintained relatively well during endurance test. Estimated electrical operating cost about \$1.50-\$1.80 per month-lowest of the five 5 cu ft refrigerators in this test, and about equal to that of the Kelvinator 4 cu ft size. Thermostatic control of refrigerator temperatures better than average. Relatively quiet in operation. Some rust developed on legs during high-relative-humidity endurance test.

Refrigerant, dichlorotetrafluo-roethane.

Kelvinator K4-36 (Kelvinator Corp., Detroit, Mich.) 4.15 cu ft capacity, \$129.50. Operating economy maintained relatively well during endurance test. Estimated operating cost about the same as for the 5 cu ft Frigidaire DRS-5-36. Refrigerating capacity (i.e., coldmaintaining capacity) judged adequate for unusually severe conditions. Thermostatic control of refrigerator temperatures not so good as the average of the group. The conditions of the test did not permit comparison of noise of operation with that of the other refrigerators, but noise of this model was independently judged unobjectionable. Refrigerant, sulphur dioxide.

Kelvinator K6-36 (Kelvinator Corp.) 6.16 cu ft capacity, \$189.50. Operating economy maintained relatively well during endurance test. Estimated operating cost 40c per month greater than for 5 cu ft Frigidaire DRS-5-36. Refrigerating

capacity judged adequate for unusually severe conditions. Thermostatic control of refrigerating temperatures not so good as the average of the group. The conditions of the test did not permit comparison of noise of operation with that of the other refrigerators, but noise was independently judged unobjectionable. Consumers' Research does not have available sufficient information to permit a judgment of the relative merits of the corresponding "economy" model (6 cu ft) Kelvinator KS6-36. Refrigerant, sulphur dioxide.

General Electric V5 (flat top) (General Electric Co., Cleveland) 5.2 cu ft capacity, \$174. Operating economy maintained relatively well during endurance test. Estimated operating cost about 50c per month greater than for Frigidaire DRS-5-36. Thermostatic control of refrigerator temperatures better than average. Relatively quiet in operation. Refrigerant, sulphur dioxide.

Disraeli remarked of lawyers that they first try to get on, then to get honor, and at length to get honest. Advertising is somewhere between the first and second steps of that evolutionary process. It has proved its power to get on and to push businesses on. It has not yet proved its right to be honored.

-From a speech by Bruce Barton, America's ace advertiser, of the firm of Batten,

Barton, Durstine & Osborn.

from men's rubbers per dollar of their price to the consumer was found in a test to vary by as much as four to one for different brands. As is nearly always found to be the case when the results of technical studies are compared, price proved to be no guide to quality; \$1.50 was the price charged for one of the worst pairs as well as for the best pair. Almost as large a variation was found in women's galoshes.

Rubbers and galoshes wear out in many different places. Some people report that soles wear through first, others that holes first appear in heels or that the bottom of the heel separates from the rest, flapwise, and still others that they have to discard rubbers because of the uppers tearing through, weakening or rotting of the fabric. In the present test, the technicians did not attempt the difficult task of measuring the durability of rubber footwear at each of their many points of vulnerability, but only at one of the most important and significant places, the sole, which ought to be a fair index of the degree of care, good workmanship, and sound materials employed by the manufacturer in his product. Sole wear tests were carried out on a machine specially made for testing of rubber products. Each rubber or galosh was then dissected to permit of judgment of its construction.

Provided no deficiencies or defects of construction have been revealed by such detailed examination, the relative durability of the rubber or galosh as a whole may be judged from that of the sole alone.

Twelve years ago the line of women's overshoes consisted chiefly of arctics with metal buckles, but in recent years manufacturers have contrived to produce numerous varying styles as in other lines of apparel to induce the feminine consumer to discard serviceable footwear as soon as possible, for new. The latest innovation is a galosh that is very thin and designed to "preserve the trim line of the foot": this, however, fits so tightly that the trim foot is likely, in severe weather, to be a cold one. Of men's rubbers there are three common types distinguished by the height of the upper: the highcut "storm" type, the "sandal" with upper of intermediate height, and the low-cut "clog." About three years ago an elastic upper, either unlined or with a lining of thin rubber which is much more stretchable than fabric, and hence fits more snugly to the shoe, was introduced. (Data on the durability of this type of construction in comparison with that using fabric lining are not vet available.)

The recommendation of the brands of rubbers and galoshes listed on the next page is based on the service that may be expected of them per dollar of the price paid by the consumer. Such a method of rating works out well where the thing desired or required of a product is maximum length of service in normal use per unit of expenditure—a concept roughly analogous to the miles per dollar in the case of automobile tires.

It should be remembered that the maximum useful life of rubber goods will be assured when care is taken to keep them free from oil, grease, and high temperature, and not to permit them to stand in the sun or be exposed for a long period to any strong

light.

From twelve brands of rubbers and galoshes which were tested, we recommend the four which follow.

# RECOMMENDED Men's Rubbers

Ball Brand (Mishawaka Rubber & Woolen Mfg. Co., Mishawaka, Ind.) Ariel Sandal, No.

6140. \$1.50. Sandal type. Uppers of dull ribbed-finish rubber, stretchable type, unlined. A well-made rubber. Judged the best buy of six pairs tested.

Ward's (Distrib. Montgomery Ward & Co.) No. 4791. 89c. Storm type (high fronts). Uppers of glossy rubber, with knit fabric lining. Lacked heel reinforcement (which omission may prove to be weak feature for many wearers).

# Women's Galoshes

Ward's (Distrib. Montgomery Ward & Co.) No. 4578. 85c. Three snaps. Fleece lining. Attractive "plaid" (raised relief pattern) finish. Well made.

La Crosse (La Crosse Rubber Mills Co., La Crosse, Wis.) Womens' Sue Broadway, No. 201. 98c. Three snaps. Fleece lining. Dull finish, ribbed and pebbled. Heel reinforcement less adequate.

Women and National Income The social value of the intelligent consumer in a country where the housewife is the leading consumer. It is estimated that when our annual income approximates \$75,000,000,000 the women, of whom more than 50 per cent are homemakers and practically all identified with home and family life, are responsible for the expenditure of some \$32,000,000,000 or 42 per cent of the total. And it is further estimated that the expenditure of a goodly part of the remainder is influenced by women. We must, therefore, accept the fact that expenditures by these 28,000,000 homemakers are a controlling influence in the economic and social order for good or bad,

and hence that they should be made wisely. Not only do they influence standards of living, but they influence production by determining to a great extent the kind and quality of products to be made.

-Adelaide S. Baylor in Journal of Home Economics

# PUT PRICES IN ADVERTISEMENTS

E WOULD like to tell advertisers who leave out the price of the article advertised what we think of that practice. Even a New York columnist has expressed annoyance, and hazarded a guess which is certainly a safe one.

"Often the price is not given or hinted at because the manufacturer or the dealer thinks that the salesman can talk somebody into buying with more convincingosity than the printed word could achieve. What the manufacturer appears not to know is that there are many possible purchasers who are salestalk shy; who are afraid of being talked into buying something that they don't actually have to have. Often the price of these things is less than the fearful reader thinks it will be; but rather than go to the trouble of sending for a circular—which also may fail to tell the price—or of telephoning to the distributor, he lets the thing go by default and worries along with the old-fashioned ice box and coal furnace." (F.P.A.'s column, New York Herald Tribune, October 7, 1932.)

We think that if there is anyone to whom consumers should express themselves sharply and positively, it is the advertiser who is unwilling to take responsibility for his advertising to the extent of telling what the offered goods will cost. In so far as any advertising has justification, it is that it tells the consumer things he needs to know, and advertising that does not state the price in a specific and fully informing way does not do that, but leaves the field open to further waste of time and investigation and to badgering and follow-ups and telephone prospecting by run-of-office salesmen and even that special breed of pest known as the expert closer.

The way to get prices into advertisements is for you as a consumer to write to the manufacturer and say that you may be interested in his article, but you will not develop that interest until he puts the price into the advertisements; you may wish to add that you take this position precisely because you are unwilling to subject yourself to the hazards of a call from one of his high-pressure salesmen. That form of expression may have a value in impressing an advertiser with your need for advertising which performs an economic function and has in it a reasonable element of mutuality. Don't telephone your message; write it. Written communications have a way of getting noticed by more people, and may even, in exceptional cases, reach the incoming-letter tray of the General Sales Manager, or the Third Vice-President in Charge of Advertising or Public Relations.

Advertising men are smoking a great many cigarettes and drinking (at your expense) many long drinks these days over the business of stimulating purchases by consumers who have money to spend. Maybe they will be hastened to a solution of that problem if a few thousand consumers express themselves plainly on ignorantly or deliberately uninformative advertising. The man who thinks that it is a matter of no consequence whether his dingbats cost more or less than his competitors' dingbats might just as well learn that you can use the extra 25 cents or \$25 that his product costs, as well as he can; that when he is ready to give youthe consumer—a part in the sales contact, maybe you both can begin to do business.

# DIET AND COMMON COLDS

N IMPORTANT study by Frederick Hoelzel of the University of Chicago has shown the great importance of the nutritional state of the body as a factor in the prevention of colds. It has been definitely shown that a tendency to colds and sensitivity of the skin are increased with increased retention of fluid in the tissues. A diet consisting of adequate protein, with a minimum of carbohydrates (sugar, starch, etc.) proved to be the most efficacious in the prevention of colds, while a diet high in carbohydrates with a restricted protein intake was accompanied by difficulty with colds.

Thus, contrary to the advices of many experts, a diet for the prevention of the common cold and preservation of good health would consist of liberal portions of lean meat, poultry, fish, cheese, eggs, and many other animal products, with a restricted intake of foods rich in carbohydrates such as potatoes, corn, peas, lima and navy beans, bread, cereal, pastry, and other starch foods, and candy, syrup, soft drinks, ice cream, sherbet, and other sweet desserts, including sweet fruits and fruit juices and alcoholic liquors.

The oft-quoted freedom from colds of inhabitants of the arctic regions, whose health is phenomenal until they begin to copy, or are sold, the civilized man's diet, is believed on much sound evidence to be due to their low carbohydrate intake and their use of a meat protein-fat combination as the preponderant basis of their diet, rather than to other causes.

When suffering from a cold, avoid overloading the stomach (particularly by rich foods, gravies, fried foods, richly spiced foods, and desserts, especially rich or sweet ones). At the beginning stage, free perspiration helps, and for this hot drinks should be taken before retiring. A laxative such as Cascara Sagrada, U.S.P. may also be helpful at this stage. Vitamin A has not the effect on the incidence or severity of colds that has been given wide publicity and which is the basis of much patent medicine advertising.

Symptoms which fail to respond to these simple measures should have the immediate attention of

a competent physician.

# COMMERCIAL LAUNDERING AND DRY CLEANING

THE Laundryowners National Association of Joliet. Ill., whose research and regulatory work is superior to that of most trade associations, now approves members' laundries, after inspection, which is to be followed up by semiannual inspections and by periodic check tests. Laundries carrying the sign "Approved Laundry" are tentatively recommended, pending further information as to how serious an effort will be made to police the trade. A sort of certification on a small scale has hitherto been carried out by the state laundryowners' associations of New Jersey and Pennsylvania.

In judging the effect of the washing process on the fabric, the consumer needs expert advice unless obvious damage such as tearing has occurred. Concealed damage occurs, either from the use of too much bleach, too high temperatures, or other departures from the known but little used best practices of the industry. Whiteness of the fabric may sometimes be an indication of such concealed damage, as it is often achieved the use of strong through It is, however, posbleaches. sible to remove soil from fabrics with a succession of washes in heavy suds instead of excessive This is a bit more bleaching. expensive to the laundry and less expensive to the consumer.

There are many different ser-

vices offered by commercial laundries, and economy can often be effected by a wise choice or combination of the various handfinishing, flat work, pound, and rough finish rates best suited to one's own or family's needs.

Unless you have your laundry done by a "de luxe" method where hand mending is done as a part of the service, it is recommended that mending and darning of articles be done before sending them to the laundry, so as to prevent holes from becoming enlarged, and so as to avoid difficulty in resolving the question of who is responsible for holes found in the finished work.

The usual laundering practices are sufficient to provide effective, although probably not complete, bactericidal action on white cotton and linen articles, except knitted ones. Colored socks, knitted cotton underwear, silks, rayons, and woolens, are generally not laundered at, nor exposed long enough to, temperatures high enough to effect the killing of ringworm parasites and other micro-organisms.

# Commercial Dry Cleaning

In selecting a cleaner, patronize one operating his own plant. There may be difficulty in finding one, as only a small fraction of the cleaning establishments in the U. S. do the work in their own plants. From among the plant owners your first choice should be a member of the In-

stitute of Certified Dry-cleaning Plants of America (c/o F. A. Weller, Weller-Krouse Co., Sharon, Pa.) a trade association, which provides for the certification of plants which it has investigated and found financially responsible and competent in working methods. Your next choice could be a plant owner who is a member of the Nat. Assn. of Dyers and Cleaners. Very few are. This group is supposed to accept membership only from plants which are financially responsible, have modern equipment, and employ skilled operators. The members have access to the findings of the Association's research laboratories. which is a great aid in helping dry-cleaners to get out from under customer complaints; to the training facilities of its vocational school; etc. Even members, however, frequently fail to follow the best trade practices. The clause in the former drycleaners' code providing for the setting of minimum standards of dry-cleaning service was consistently ignored by the Code Authority of the industry, and by the government. (All the codes were for business, not for customers.)

Good commercial dry-cleaning practice involves four steps:

1. Dry cleaning proper, in which the fabrics are placed in a dry-cleaning washer where they are immersed successively (a) in a cleaning solvent without soap; (b) in the solvent with a suitable soap; and (c) in

fresh solvent which is allowed to circulate through the washer until all of the soap and soil have been removed and the solvent remains water-clear.

2. Spotting, a difficult, skilled, hand operation in which refractory spots not removed during the dry-cleaning process are taken out with special reagents.

3. Re-dry-cleaning, not necessary unless rings or other marks remain after the spotting operation.

4. Finishing, steaming and pressing.

Do not depend on dry cleaning to sterilize clothes or draperies, after sickness, for example. The solvents will not remove or kill a large proportion of bacteria or fungi which may carry infection.

Some plants render cleaning services of different kinds at different price levels. The object is to allow any one process to be carried out thoroughly but to eliminate some, spotting and mending, for example, if the garment does not need such attention or if the customer does not wish to pay for it.

Cheap practices include machine loads too large to allow the solvents to pass freely between garments, without careful separation of dark from light fabrics. The solvent is often reused without proper reclaiming, after it has become dirty and rancid. Some of the necessary processes may be omitted. Cleaning at a very low price can be done only in indiscriminate mass

production of this kind. Although not all small, middleman, or dealers' establishments will have low prices, the work of such firms will usually be definitely below the standards of a regular dry-cleaning plant owner.

For men's suits, modern equipment with machine work, if rightly used, will give better results than hand pressing. For silk fabrics, hand finishing gives the best and most economical results, although large flat areas can be done by machine and "touched up" by hand.

# Laundering and Cleaning Acetate Rayons

All rayons are somewhat difficult to launder because of their considerable loss of strength when wet. Cellulose acetate rayons (Acele, Celanese, Chacelon, and Seraceta), according to the best information we can obtain, present an especially complex cleaning problem.

We believe it wise for the consumer to mark these rayons as such, when sent to a commercial laundry, and to require, in advance, a guarantee from the laundryman that the fabrics will not be spoiled by improper washing or finishing.

Laundering the materials at home, using warm water and neutral soap, and ironing with a warm, not hot, iron is considered safe, although novelty weaves or heavy crinkled crepes may not finish satisfactorily.

After washing and thorough rinsing, the article should first be superficially dried by rolling it up between two or three turkish towels. The temperature of the iron is of great importance, as the cellulose acetate yarns melt at a comparatively low temperature. Whenever possible it is advisable to test for proper temperature on a sample of the fabric or on a small unexposed corner of a garment before pressing. Pressing should be done on the reverse side of the fabric. Dull lustered rayons of this kind should be ironed dry, since they tend to become lustered if ironed wet. Lustrous cellulose acetate fabrics may be ironed damp, and it is recommended that the moisture be applied first, directly to the fabric with a damp cloth. Both dull lustered and lustrous materials of this type may also be ironed by using a heavy piece of canvas, slightly dampened on the surface, in connection with a fairly hot iron. In dry cleaning, too, there is danger of injuring acetate rayons, since many of the solvents commonly used to dry-clean other fabrics seriously affect (about 75% of "silk" dresses sent to cleaners to be spotted, contain cellulose acetate fibers). It is possible to use reagents which will not harm these rayons, and the consumer should inform the cleaner when giving him cellulose acetate materials to clean to avoid risk of serious damage.

# TURKISH BATH TOWELS

F THREE very common types of Turkish towels there is one type which because of its construction will provide, as a general rule, the least value for the money. Ability to distinguish this type of towel is a matter of some practical importance to the housewife, for there are few brand names of towels which serve as guides to indicate a particular quality. In the towel industry, quality is identified by style numbers, which are known to the manufacturer and the wholesaler, but which are not divulged to the con-Thus the name Cansumer. non or Martex designates towels of many different grades and prices, not as many consumers have been led to suppose, a towel of particular type, strength, and quality of manufacture.

The name "Turkish" is believed to have been given to terry cloth towels because extensive exportations of them were made to Turkey. They are practically always of cotton. In weaving a Turkish towel the pile-loops are formed from some of the warp yarns or threads, which, on account of their use in this way, do not contribute to the fabric strength. (In the same way, the nap of a cloth such as a blanket contributes no strength.) In the warp direction, of course, the fabric strength depends upon the strength of the threads and the number of them per inch which

form the ground warp, i.e., the part of the warp not involved in forming the pile-loops. In the most common weaves a strong, durable towel has the ground warp yarns equal in number to the pile yarns (those which form the loops), whereas a weak towel has only one-half as many ground as pile yarns. When the number of ground yarns equals the number of pile yarns, the ground yarns may commonly be either single-ply or two-ply, and when the number of ground yarns equals one-half the number of pile yarns, the ground yarns usually, but not universally, are single-ply. Thus most Turkish towels may be classified into three very common types of construction as follows:

Type I—Single-ply ground warp with half as many ground as pile yarns. Single-ply filling.

Type II—Single-ply ground warp with an equal number of ground and pile yarns. Single-ply filling.

Type III—Two-ply ground warp with an equal number of ground and pile yarns. Single-ply filling

ply filling.

A fourth type, which is less common and not particularly to be desired, is made with a twoply ground warp with half as many ground yarns as pile yarns and with single-ply filling.

The housewife who desires a good, quickly-absorbent towel at a medium price should, as a general rule, seek towels of Type II. Type III towels also are good. They are heavy and expensive but do not dry one faster, nor are they more durable than Type II towels. Light-weight, weak towels usually are of Type I. Since most of the poor towels belong to this type, the purchaser should learn to determine by inspection whether or not the construction of a towel is such that the number of ends or threads of the ground warp (i.e., the part of the warp not involved in forming the pile-loops) is equal to one-half the number of ends or threads out of which the pile or raised part of the towel is formed. This as a rule is not difficult to do, for it appears to be universally the practice in weaving Type I towels to weave two pile threads as one so that all loops occur in pairs (i.e., as double loops). On the other hand in the weaving of Types II and III towels the common practice is to weave the pile threads singly so that all loops occur one by one (i.e., as single loops). Thus by a simple inspection in the store the housewife can, with the present weaving practice, reject the commonest type of towels having a weave which is undesirable (because it is likely to be weakest, i.e., the common Type I towels having twice as many pile as ground yarns).

It is our opinion that most people will probably like a towel weighing, in the common 22 x 44 inch size, about 9 to 11 ounces, and further, that a high-grade towel should not be weaker than

40 pounds in the warp direction and 35 pounds in the filling direction.

Consumers' Research has tested sixteen Turkish towels, for color fastness, weight, durability, and shrinkage after washing. The widths measured from 22 to 24.5 inches, and the lengths ran from 44 to 48 inches. (Technically, they were all plain threepick [three filling threads] terry weaves so arranged that three filling threads formed one crosswise row of loops.) The amount of washing given each towel approximated the laundering ordinarily received during one year of family service. Shrinkage varied for the different towels from 3.4 to 9 percent. All the towels were satisfactorily colorfast. The strength of each towel is indicated below by giving the force which, applied evenly across one inch width in the warp or filling direction, caused it to break.

Of sixteen towels tested, we recommend the four which follow.

# RECOMMENDED

Cannon (Cannon Mills, Inc., 70 Worth St., New York City) 49c. Type II. Weight, 9 oz. Size before washing, 22.8 x 44.6 in. Shrinkage in length, 7.9%. Tensile strength after washing, warp 44 lb, filling 35 lb.

Cannon (Cannon Mills, Inc.) 59c. Type II. Weight, 9 oz. Size before washing, 22.5 x 44.6 in. Shrinkage in length,

6.7%. Tensile strength after washing, warp 56 lb, filling 35 lb.

Martex "Monarch" (Wellington Sears Co., 65 Worth St., New York City) 50c. Type II.

Weight, 9.8 oz. Size before washing, 22.3 x 45 in. Shrinkage in length, 6.7%. Tensile strength

after washing, warp, 49 lb, filling 36 lb.

Martex (Wellington Sears Co.) \$1. Type II. Weight 11.5 oz. Size before washing, 24.5 x 48 in. Shrinkage in length, 5.7%. Tensile strength after washing, warp 54 lb, filling 37 lb.

### WHAT THE CONSUMER EXPECTS OF BUSINESS

THERE must be availability of goods and services for general consumer use. In some instances this would require their being priced in more reasonable relationship to the costs of production, and in others strongly suggests a more effective distribution of purchasing power among consumers.

THE mechanism of distribution must serve the convenience of consumers. This involves the location and character of distribution outlets, and the forms and units of delivery of goods. High congestion of distribution outlets in some places and their sparsity in others are opposed to the principle of the consumer's convenience. Packaging for convenience, utility, and economy, and not for deception or irrelevant sales appeals, is also indicated under this consideration.

THERE must be no misrepresentation of products or services in advertising, either as to price, quality, safety, or usefulness. There must, on the other hand, be a fair and full representation touching all points of appropriate information for the users of goods and services. The amount and cost of advertising and other distribution and marketing services should be restricted to the socially useful minimum.

Sales tactics must not impose upon the consumer pressures for the purchase of needless, harmful, and otherwise misrepresented goods and services. Meaningless testimonials, fake awards, and the contest madness are only a few of the more obnoxious sales tactics.

The most important of all considerations is that goods and services must be provided in such manner as to protect the health of consumers, and supply them with appropriate qualities bearing reasonable relationships to their expenditures.

# RECOMMENDED COLD CREAMS

OLD CREAM on the whole is believed to be a safe product. A few unpleasant experiences from its use have come to light, which appear, however, to be due to individual sensitivity to some ingredient present, perhaps one of the perfume oils used. Overuse of cold cream in place of soap and water to cleanse the skin is known to have been responsible for some cases of acne rosacea. There is no need to seek a substitute for mild soap and water as a routine cleansing agent. If, however, the skin is extremely dry and rough, cold cream can be used at intervals as an emollient or skin softener. Since lanolin is absorbed by the skin to a greater extent than other fats, creams containing it may have a greater usefulness in this regard.

Cleansing creams are generally made of petroleum jellies (petrolatum, *Vaseline*) of different consistencies varied by changing the proportion of added mineral

oil.

Creams may be roughly classed in four categories: first, the grease or cold creams; second, the so-called cleansing creams, both of which have a base of petrolatum, a little wax, and spermaceti (the cleansing creams usually contain a higher per cent of mineral oil and liquefy more easily); third, vanishing creams, which consist, for the most part, of ordinary stearate soaps; and fourth, the massage creams, usu-

ally casein (milk curd) preparations. Wrinkle, pore, and astringent creams, skin foods, reducing and tissue creams, and the like, are usually mere variants or combinations of the foregoing plus hokum, and are invariably of no special value, although the better ones may be harmless.

The bases of practically all face creams belong to one of the four types. Since the formulae for face creams are such common property and the ingredients so well known, it is doubtful that any *ordinary* cold or cleansing cream need be feared because of harmful or toxic ingredients. The simplest rule to follow is to purchase the brand which gives you the most for your money and whose texture and perfume please you.

Because of many requests for information about cold cream. Consumers' Research had a number of well-known nationallydistributed brands analyzed, although it is our belief that, except as already noted, cold cream on the whole is a safe product. The cold creams tested are listed in order of increasing alkalinity. Whether or not this alkalinity is undesirable is a subject of conflicting opinion among cosmetic chemists. No brand has been given an unfavorable rating because of its presence. There may be some skins, however, which will be sensitive to a cream with an alkaline reaction. Comments are also introduced on the texture of the creams, which are purely personal opinion-judgments and not based on chemical or other tests. Since the jars of the various brands contained varying amounts of cream, the content in every case was weighed and the price per pound calculated,

### RECOMMENDED

Max Factor's Theatrical (Max Factor, Hollywood) More like cleansing cream formula. Liquefies easily. Calculated price per lb, \$1.34.

Armand (Armand Co., 124 Des Moines St., Des Moines) Texture smooth, slightly stiff. Calculated price per lb, \$2.93.

Lady Esther Face Cream (Lady Esther Co., 2012 Ridge Ave., Evanston, Ill.) Texture smooth, light. Calculated price per lb, \$2.11.

Johnson's Baby Cream (Johnson & Johnson, New Brunswick, N.J.) Texture stiff, smooth. Calculated price per lb, \$4.64.

Three Flowers (Richard Hudnut, 113-123 W. 18 St., N. Y. C.) Texture smooth, light. Calculated price per lb, \$4.48.

Boncilla (Boncilla, Inc., Indianapolis) Texture light, smooth. Calculated price per lb, \$2.24.

Woodbury's (Jergens-Woodbury Sales Corp., Cincinnati)
Texture light, smooth. Calculated price per lb, \$2.24.

Facen (Park & Tilford, 485 Fifth Ave., N.Y.C.) Texture light, smooth. Calculated price per lb, \$2.72.

Belle Fleur (Dermay Perfumers, Inc., 347 Fifth Ave., N.Y.C.; distrib. Silver-Grand chain stores) Texture slightly grainy, fairly light. Calculated price per lb, 25c. Best buy.

Charmis (Colgate-Palmolive-Peet Co., 105 Hudson St., Jersey City, N.J.) Texture smooth, fairly light. Actual price per lb jar, 75c. Secondbest buy.

Jonteel (Distrib, Liggett's drug stores) Texture stiff, slightly grainy, Calculated price per lb, \$3.36.

Daggett & Ramsdell Perfect (Daggett & Ramsdell, 2 Park Ave., N.Y.C.) Texture smooth, uniform, slightly stiff. Calculated price per lb, \$1.44.

Pond's (Pond's Extract Co., 60 Hudson St., N.Y.C.) Texture light, smooth. Calculated price per lb, \$2,40.

Parke-Davis (Parke, Davis & Co., McDougall Ave., Detroit)
Texture smooth, slightly stiff.
Calculated price per lb, \$2.24.

Squibb (E. R. Squibb & Sons, 745 Fifth Ave., N.Y.C.) Texture smooth, light. Calculated price per lb, \$2.08.

Superlatives, generalities, baloney testimonials and pseudo-science, while legal in the name of puffery, are transforming Barnun's proverb so that what is born every minute is not a sucker but a skeptic, like Skippy's pal, always belittling. Soon advertisers may have to start hawking elephants to make people believe they have a mouse to offer.—Anson Earl Sawyer.

# DEADLY POISONS IN COMMON FOODS

THE number of items of our food supply into which lead, arsenic, copper, selenium, manganese and other poisonous metals are now known to enter in practically significant or clearly dangerous amounts is so great that it is impossible for city people even of large income to avoid the hazard (which is directly related to processes of commercial food production and distribution) in any way or by any amount of trouble. A large number of analyses, made by qualified experts, have established the widespread occurrence of these extremely poisonous metals in our food beyond all question. The major hazard in connection with arsenic and lead poisoning from the food supply is, of course, the residues or coatings that are left on fruits and vegetables which are now sprayed or dusted with poisons, almost universally, to protect against the depredations of insect and fungi. The amount of lead and arsenic now used in this form runs to approximately 1/2 pound per person per year, and a millionth of that amount of arsenic, and a far less quantity of lead, is more than should be permitted on a pound of any food! Only very recently has the situation become so alarming; it may take many years for effects noticeable in the general health and in general medical and hospital practice to appear. Between 1919 and 1929

there was a fourfold increase in the use of poisonous metal salts as insecticides; and in the same period the consumption of arsenic insecticides was increased more than 19 times, or from 3 million to 58 million pounds. The latter amount is so large that, assuming it all to be in the form of lead arsenate (which most of it is), 1/6000 of it uniformly distributed through the year in the American food supply would produce symptoms of lead poisoning on some of the population within ten years, and it is quite certain that a much larger fraction of this will often remain on sprayed and dusted fruits and vegetables. Daily intake of 1 5-millionth  $(\frac{1}{5,000,000})$ pound of lead in drinking water has caused lead poisoning within less than ten years.

In addition to these sources, certain types of factory processed foods seem so invariably to be contaminated as to warrant regularly excluding them from the diet. Chocolate and cocoa products, gelatin, baking powder, wine, and apple butter are sources of considerable amounts of lead and/or arsenic, and few samples of these have yet been found to be uniformly free from contamination.

People are prone to assume the attitude that since they have eaten and drunk these foods and beverages for years with no apparent or recognized ill-effect, there is no reason for being espe-

cially alarmed. This is about as logical as the stand taken in effect by government crop-production experts and some home economists that no one was likely to be injured by a poison that he could not see or taste or did not get an immediate bellyache from, or the conclusion of early investigators in the field that no one was likely to die from one meal containing insecticide-sprayed fruit or vegetables: there have, however, been a number of cases of death from a single accidental dose of poison received in this way. In the words of C. N. Myers, eminent investigator of metallic poisoning, speaking of the danger from copper, one of the lesser poisoning hazards, probably, for most consumers, "The fact that a patient does not turn into a copper kettle is believed by some to indicate that poisoning does not exist." The end results of longcontinued dosing with small amounts of copper, arsenic, or lead are not by any means clear cut or easily diagnosed. Those, including federal and state officials and health officers of states and cities, who agree without either knowledge or investigation that the hazard of poisoning from spray residues is a non-existent or trifling one, ignore the widely accepted and fully documented knowledge of toxicologists that a slow, insidious accumulation of lead in the human organism may occur more frequently than has been suspected, that the stored lead may serve as a potential cause of disease conditions of the most serious character, and that the first evidences of poisoning from infinitesimally small daily doses of lead have appeared as long as a decade or more after the beginning of the exposure. It is a grave error to make the assumption that ingestion of arsenic or lead in amounts below those which produce clearly characteristic and promptly manifested symptoms of poisoning is non-injurious. "Metals of all kinds are potentially dangerous even in small amounts and the aim should be to strive for their absence rather than to regulate the amount," says C. N. Myers.

There is abundant and increasing evidence to show that lead and arsenic are implicated as a part, at least, of the underlying causes of cancer, and that the increase of these metals in the food supply and elsewhere in the environment is one of the fundamental reasons for the increased occurrence, in recent years, of this and other baffling diseases of "civilization." Clinical experience has shown beyond all argument that many people suffer from lead poisoning, sometimes in serious ways, without being in the least aware of the cause of their ill-health. Lead is a cumulative poison. After being taken for years in extremely small quantities without apparent result, it may suddenly cause a disastrous and lasting illness, or mental breakdown, or death. Or it may manifest itself in vague

and mysterious, often disabling, symptoms which are mistaken for symptoms of other ailments, even by excellent physicians. One point is exceedingly clear: no one can safely be guided on these matters in this year in this country by the offhand opinions of any chemist or of one's family physician (and this implies no criticism whatever of the physician). The technical and scientific literature is indeed so large that properly to read and understand it as it is published would take more time than any physician in private practice could spare from his routine duties. There is all too little knowledge among medical men of the nature of the ailments that result from lead and arsenic poisoning, particularly the latter. The arsenic and radium contents of mineral springs have actually been touted in advertising, so general is the ignorance of the laity and, indeed, of some physicians, of the toxic relationship of these two foreign substances to the human body. Arsenic is not a normal constituent of the human body, though it is common in shell fish, less so in other sea food, and, like many other metallic poisons, is found naturally in some plants.

The most menacing type of poison, of course, is one whose effects are obscure or delayed, since cause and effect are so difficult to relate in such cases, even for the expert physician. Lead and arsenic, especially the latter, are exactly such poisons, and we

believe that the death rate from typical end results of arsenic, lead, and fluorine poisoning—cancer, for example—could rise rapidly or be doubled or trebled within a few years before sufficient public and professional attention would be drawn to the problem to bring about drastic governmental and industrial measures for its sure correction.

". . . The absorption of relatively small amounts of arsenic over a long period of time will produce conditions which simulate many other diseases . . .," says Myers. Moreover, arsenic poisoning apparently manifests itself in the form of common ailments, the cause of which, significantly enough, has always been surrounded with uncertainty. Thus, 30 per cent of all cases coming into Myers' skin clinic diagnosed as eczema, are sufferers from a complication of arsenic poisoning and the condition usually described as eczema. In 52 per cent of eczema cases in infants and young children, tests of the urine showed dangerous amounts of arsenic. The milk of nursing mothers whose babies suffered from eczema showed arsenic was present in 72 per cent of the cases examined. Moreover (and this negative finding is most important in establishing the relation of cause and effect), in 15 cases where eczema was not present, showed a total absence of arsenic, and in the remaining two cases the amount of arsenic found was very small. A case is

reported of a child who was sensitive to several kinds of food, and who, upon removal from the body of retained arsenic, was able to eat with impunity those foods that had hitherto caused a reaction of asthma or urticaria (hives). The increasing amount of baldness, even, is a symptom of the widespread nature of the danger; 75 per cent of 198 cases of a certain type showed arsenic and lead in pathologic amounts in the urine, and improvement in such cases occurred when appropriate treatment to eliminate the metals was followed. In a number of cases that were tested. arsenic was further positively identified as present in the skin of the affected area. Arsenic poisoning may be manifested in trouble with the nervous controls resulting in headaches, neuritis, and even paralysis.

More significant even, is the fact that arsenical skin cancers are known to have followed medication with arsenical tonics taken by mouth, after an interval of many years. This effect of arsenic received into the body in large amounts by workmen and miners has been known for centuries, but the dangerous doctrine held by most chemists, and all too many physicians, that small amounts of almost any poison can be taken for either a long or short period, is completely refuted by the large number of cases of malignant disease of the skin following, often years later, upon use of arsenic in agricultural spraying operations or its ingestion as a "medicine."

Foods are not as a rule intentionally or maliciously contaminated with lead and arsenic by the growers or processors (in the sense that harmful preservatives are deliberately added to bottled drinks, or sulphur to dried fruit). Most of the trouble is caused by the residues of poisonous insect sprays; often it comes from contact of foods with metal utensils used in industrial processing, which contain lead or arsenic, or both, as an impurity. A given business interest may not even know that its products do contain lead or arsenic, since real chemical control on the toxicologic side in food industries is almost completely wanting. The obscurity of the means by which foods may become contaminated is well illustrated by the sack of sugar which absorbed an arsenical liquid oozing out of a leaky can shipped in the same railway car. In another case, sea water washed over hides that had been dehaired with an arsenic salt, onto meat stored below decks, and left large amounts of the arsenic on the meat. Liquid weed killer used on farms to control noxious weeds has killed men and cattle and poisoned much milk and meat besides. Sheep are dipped into arsenical baths. A market gardener died after eight years of slow poisoning from the use of poisons in his fields. Arsenic has appeared as a pigment in wallpapers, bread and candy wrappers, and printing ink in

newspapers. Cigarettes contain large amounts of both arsenic and lead above even the generous limits set by the Food and Drug Administration for foods and beverages; yet the inhalation of smoke into the lungs presents a more dangerous means for the absorption of arsenic and lead than does the ingestion of contaminated foods into the stomach. This is because the lungs have no organ corresponding to the liver, which could protect the body from poisonous fumes or smoke.

The numerous poisonings that occur are not played up in the press. When on account of the number involved, a story does force its way into the newspapers, the sale of the vegetable or fruit involved falls off alarmingly—as in one city where the sale of a certain kind of cabbage dropped 50 per cent overnight due to alarm at seizures occasioned by the reckless use of lead arsenate by growers. Suppression by the executive departments of the government of information in the possession of its officers and scientific experts is conventional and tolerated, recently even by a committee of the Senate itself which suppressed, without public protest or complaint by Washington representatives of the newspapers, major parts of a "public hearing."

Material on menaces to health, whose increase or continuance undisturbed has commercial or economic value to some interest, is so regularly and carefully kept

from public knowledge that the increase of the hazard and of illhealth and loss of life due to it could, given the present corrupt alliance of food and drug administrative officials with agencies producing and otherwise having a commercial interest in the distribution of commercial poisons, go on without the probable cause of the situation being brought to public attention in any way. Yet this is well known to medical specialists in this field. A government whose Bureau of Public Health is estopped by official order of a Secretary of the Treasury, at the instance of the meat packers, from warning the population against the posed) dangers of eating large amounts of meat in summer is not a government which is going to harm the paint, cotton or wool trade, or the agriculturists' interest in increased consumption of apples, cabbage, celery, and milk by pointing out the menacing and increasing amounts of poisons which these substances now too often contain. The government officials have a very nice "out" in cases of this kind: it would harm the consumer for the government to inform him, they say, of the dangers to which he exposes himself in eating sprayed lettuce or apples, poisoned milk or fish, because he cannot afford to be deprived of the benefits to health that inhere in these foods. Better, therefore, the argument runs, let the consumer be poisoned than run the risk of deficiency disease because of his being taught to avoid the dangerous foods whenever they are produced or marketed under conditions not assuring their freedom from contamination. It is interesting to note that the commercial beekeeper has, for business reasons, been able to obtain the enactment of laws in certain states for the protection of his property in bees from the dangers of spray residues on fruit trees to bees; on the other hand, the consumer has thus far been unable to obtain the passage of laws providing him with protection from the hazards of poisoning from lead and arsenic spray residues. A bee is a commercial asset, whereas, up to the present time, the slow poisoning of millions of consumers has not been seriously considered by commercial interests from the standpoint of its effects upon the market for consumers' goods. The view of Myers and his co-workers is that the government's limit of 1/100 grain per pound or gallon of food or beverage is absurdly large, and they imply in their cautious way that its enforcement is in effect nil, or nearly so, as their own findings on the amount of arsenic present on apples, cherries, peaches, and so on, tend to show quite clearly.

Because of the failure of the United States Department of Agriculture to heed warnings given by competent toxicologists and to adopt a tolerance for lead and arsenic based on their advice instead of on the convenience and greater profits of agri-

culturists and food processors, Consumers' Research has lately found it necessary in its ratings of foods and beverages to set its own tentative tolerance, or limit, as to the maximum amount of lead and arsenic which one might perhaps safely eat, over not too long a period, with one's daily food. After careful consideration of a large number of authoritative reports published by leading toxicologists on the basis of extensive research (but without reference to food processors' or growers' opinions or customs in the use of spray materials), Consumers' Research proposes very tentatively a tolerance of 0.3 parts per million of lead1 and 0.5 parts per million of arsenic (as arsenic trioxide).1 Consumers' Research's tolerance for lead is about one-eighth that of the United States Department of Agriculture, and its tolerance for arsenic about one-third that of the United States Department of Agriculture, Consumers' Research adopts these tolerances merely as a basis for warning consumers against the most dangerous foods, and it should not be assumed that Consumers' Research considers that foods having a lead or arsenic content merely below the tolerance are

<sup>&</sup>lt;sup>1</sup>Perhaps these limits may reasonably be doubled for foodstuffs such as spices, chocolate, flavorings, and baking powder, commonly used in *small proportions* as ingredients in the preparation of other foods. (But this extra allowance would not apply to chocolate when used as a food in itself.)

safe for regular consumption.

It is obviously quite useless, however, to place complete reliance on a tolerance set for general application to all foods, when one individual may consume regularly only a few of the arsenic- or lead-bearing substances, and another consumes habitually many more, or is exposed to a few of the many other non-food sources (such as tobacco. automobile exhaust gas, garage fumes and dusts, medicines, absorption from leadweighted silk garments, cosmetics, hair tonic, drinking water, paint, wallpaper, wallboard, treated wood, a certain type of concrete, insecticides, or fertilizers). A person in the latter group might ingest a dangerous amount under tolerance figures that would provide a reasonable safeguard for the person who is exposed to only a very few nonfood sources of the poisons.

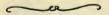
It is impossible to make the tolerance so low as to permit only safe amounts, because the best evidence (and much is available) indicates that any amount of these two metals is objectionable and may harm those who are old or very young or whose health is poor or whose bodies already hold large amounts of these cumulative poisons. The foods most probably safe in regard to lead or arsenic content are meat (but it is certain that the natural arsenic content of fish and seafood is not free, as some hold, of toxic hazard), eggs, dairy products (although commercially distributed milk does often contain a small amount of lead and quite likely arsenic as well), cereals and foods made therefrom, root vegetables (grown on soil which has not been heavily dusted or sprayed when growing other crops, and which has not been fertilized with mineral [commercial] fertilizer), and fruits and vegetables from which the skin, hull, or rind is removed before eating. On the other hand, among foods most likely to contain lead and/or arsenic are cocoa and chocolate, glucose - containing foods (candy, soda-fountain syrups, and baby foods), sardines, baking powder, gelatin, artificially colored foods and beverages, the peel or skin of a large proportion of fruits and vegetables; foods made from fruit. such as jam and jelly, apple butter, and marmalade; and, especially, vegetables such as broccoli and cauliflower, from which the spray or dust which has been applied cannot be removed by any practicable method. Special parchment papers used for cooking vegetables have been found to contain lead. Easter egg dyes have often contained lead.

Not content with contaminating the food supply with copper, arsenic, and lead, agricultural scientists are now turning to still more dangerous insecticides: mercury, selenium, manganese, fluorine, and others. "The exceedingly deadly nature of mercuric compounds" causes even the Food and Drug Ad-

ministration "the gravest apprehension"; and "selenium," says the Administration, "produces effects upon higher animals which can only be characterized by the term 'ghastly.' " Selenium is coming into special prominence at this time because of publication finally of the long-suppressed discovery of the cause of the terrible injury and death animals eating herbage grown on soil containing minute amounts of selenium. This mineral occurs in certain limited areas in the states of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, Oklahoma, South Dakota, Utah, and Wyoming. Except for wheat made into flour at distant mills, little produce grown in these seleniferous areas was used for human food; the residents of the regions eat vegetable foods coming in from other regions. One part of selenium per million parts of soil sufficed to turn the farm produce of this region into an active poison instead of the usual wholesome food supply for men and animals. A great deal of concern is shown by state and federal authorities when selenium poisoning threatens large-scale poisoning of live-stock, but when there is the prospect of losses to wheat growers by embargo on the contaminated wheat which might poison people, or to real

estate owners through collapse of land values, with a huge decline in the state's collection of tax revenues, all information which might tend to bring about such commercially disadvantageous results is summarily suppressed.

Consumers' Research's idea in furnishing this information is not, as some consumers believe, that all consumers will be able to avoid all the harmful foods about which they are informed, but that they will begin a mounting chorus of protest that finally cannot be denied (as recent signs in governmental circles indicate they cannot, indefinitely), against the menacing and growing degradation of our food supply; a protest which will not subside until the government exercises its proper function of protecting consumers and goes to work unequivocally at the problem, and Senate committees and executive department bureaucrats dare no longer suppress discussions of its importance. Consumers should not complain about the inability to find safe chocolate or broccoli, but about the politico-economic system which makes natural, wholesome food, of any and all kinds, uncontaminated and unadulterated. increasingly difficult, and for the many, absolutely impossible to obtain.



Business men say they are "not in business for their health," and they are justified in saying so. But the community at large is not in business for anything else but its health.—Dr. Morris L. Cooke in Science News Letter

## I READ AN AD-BUT NEVER AGAIN

'YE KNOW, I don't believe I'll ever read no more ads. There ain't nothing in 'em. I just got through reading one, and doing what it says, and all it done was to git me in a jam.

I have been reading that — Soap ad. You know the one that has them pickstures where a guy's been smelling up the office, but don't know it, and the rest of the people in the place talking about him behind his back, and "ain't it a pity?" and all that, and one day somebody gits it across to him that while he's a nice guy he smells like a polecat, and he goes home and takes a bath with ----Soap and the next day a dame worth \$40,000,000 picks him up in the street and drags him off to be married.

After reading that I says to myself, "I wonder-I just wonder-whether that might be the reason why I don't git no invite to any swell dances. I just wonder. Well, it's easy to try out."

So on the way back home last Sattaday I buys me a cake of -Soap and after I got home and heard all my wife's troubles I says to her:

"I'm going to take a bath." I didn't peep no peeps about the -Soap.

"What's the matter with you

-sick or something?"

"Being a gent, I ain't answering that," I says. And then I went upstairs and got in the tub with me cake of ---Soap. Believe me, I soaked good. Give it

a break, I says.

Then, as sweet as a baby just born, I goes downstairs, wondering if anybody'll gimme an invite to a dance that night.

My wife was in the setting room reading the paper and for a minute she didn't say nothing. But in a minute she said: -

"Say, what's that smell? You been disinfecting yourself? You have no business to let yourself get into such a condition as that. Phew! Terrible!"

I didn't say nothing, I hadn't

nothing to say, special.

In a minute she went out of the room. She didn't say why, but I had me idea.

I heard her talking to herself upstairs and in a minute she

come rushing down.

"What in heaven's name are you trying to do?" she says. "Using that dog soap on yourself! Are you crazy?"

"'Tain't dog soap," I says, "I

seen an ad-"

"Well, I'll soon find out if it's dog soap," she says. "It smells exactly like the soap Mary Klauder uses for her dog. Anyway, I'm going to see."

So she calls up Mary.

"Say, Mary," she says over the phone, "something terrible has happened over here. Jim's started to use dog soap on himself. I don't know what he's got -I think he's crazy. What? No, he hasn't barked yet. Say, tell me-what kind of soap is that

you use on the pup? Is it red and smells of carbolic acid? Right! That's it-I knew it, that's it. Goodby."

"What's got into you?" says she to me. "You smell terrible!

Worse than before, even."

That was a nasty crack, but I didn't say nothing. I hadn't nothing to say, special.

At the supper table Junior says

as soon as he set down:-

"What's that turrible smell, mommy?"

"It's your father," says she,

"he read an ad."

"Do we have to have it all the

time, mommy?" says he.

"We do not," says she, "because if it keeps up, you and I will leave."

"But it's nice for you," she says to me, "because now you and Mary's pup can take your

baths together."

Well, it wore off some later, but I'm a spunky little thing when I git going, so I took another bath with it the next day. Then I tiptoed downstairs and set down in a chair without saying nothing. My wife was there.

"Oh, my!" she says in a minute. "You've gone and stirred it all up again, haven't you? Oh, dear, how can you do such a thing! Now you look here! When you go away tomorrow you'll take that soap with you. I'm not going to have it here. You can smell up the road a little."

Well, after a night in the spare room I leaves. And believe it or not, the very first customer I called on give it to me again.

We'd been talking a minute or

two when he says:-

"Say, is it you that smells that way? Carbolic acid? My goshthat's strong."

"It ain't nothing but ---Soap," I says, "something you sell right along."

"I see," says he, "so you had to come to it at last, eh? Well, well! Suppose we get through with our business, I got to have relief."

Nobody ain't invited me to dances or nothing. And everybody seems to like the old smell better than the new. And take it from me, I read no more ads. You guys'll take me as I am from now on.

THE STROLLER

## THE FINE ART OF PHARMACY

"In Federal Court in Trenton last week it became necessary for the purpose of the record to establish whether Milford G. Farley was a pharmacist. Judge Forman asked Mr. Farley if he knew how to make a tomato and bacon sandwich. 'No, your honor,' the witness replied. Thereupon the court averred that it had been fully proved that Mr. Farley was no druggist." (New York Times, March 1, 1936.)

Apparently, the shift of pharmacy from profession to merchandising has become widely recognized, and it is recognized that the test of a pharmacist is not his skill in pharmacology and in filling prescriptions accurately, but his ability in assembling sandwiches. Or perhaps Judge Forman has a fine sense

of humor, not fully credited in the Times account.

## WHAT GOES INTO PORK SAUSAGE BESIDES PORK

ORK SAUSAGE, so popular in cold weather, is almost always adulterated. The manufacturers of pork sausage are so accustomed to adding cereals, egg-albumin, preservatives, and tap-water that they resent the idea that there is anything wrong in doing it. The government itself allows 2 per cent of potato-starch or cornmeal "cereal" to be added. The trade practice does not stop at 2 per cent. Partly because the public is ignorant of its rights and partly because the board of health inspectors are, as a rule, hampered by lack of training and bound by politics, meat and meat products have had little super-This is especially true vision. within the separate states. There is some regulation of interstate shipment of meats, but much of it is unregulated. Pork sausages offer an excellent opportunity for the manufacturer to cheat. They also offer a good opportunity for you to see how and to what extent the sausage-maker "gets away with it."

Pork sausage adulteration has been a safe racket. The price of pork (to the sausage industry) varies from as little as a fraction of a cent a pound to as much as three cents a pound with generous proportions of fat included. The meat industry sells the ears, lips, snouts, cheeks, and other ordinarily inedible portions of the hog to the sausagemakers for these low prices.

Although the purse is not literally made from the sow's ear, the ear helps handsomely to fill the purse of the sausage-maker. The pork-scrap is put through a grin der and mixed with cereal. The cereal is usually the cheapest that can be bought, and of course its quality is ignored. Water is added and the mixture is rammed into casings which are usually purchased from the large meat-The forpacking companies. mulas so zealously guarded by the pork-sausage trade consist of the amounts of cereal and water per batch of sausage which the manufacturer can get away with and still sell his product. do not mean "get away with" legally—that is no problem—but how much water and cereal people will buy at meat prices without complaining, or how long before, in revolt, they will stop buying altogether. The cost of raw materials is from 1 to 3 cents a pound; the labor cost of stuffing is negligible; there is in addition a low overhead of 2 or 3 cents a pound; and the manufacturer gets from 15 to 22 cents a pound. You pay at retail from 18 to 35 cents, depending upon where you live and how much you are willing to pay. price you pay has no bearing on quality.

What should you get when you buy sausage? You are entitled to clean, fresh, reasonably lean pork. The casings should be clean and of good quality. The

chemical analysis of pork sausage should show not over 45 per cent fat, not much over 45 per. cent moisture, between 10 and 15 per cent protein and no cereals or preservatives. But these standards are flagrantly disregarded. Four times out of five you get from 5 to 10 per cent of cereal and from 5 to 15 per cent of added water. You may get as high as 20 per cent added water. The pork sausage manufacturers declare that they cannot stuff the pork and cereal into the casings without adding a considerable amount of water. But it has been noted that under the watchful eye of a conscientious government inspector the casings seem to fill very well indeed without the added water that adds such handsome profit to the business of pork packing. The manufacturer says, and you are expected to believe, "You know, pork sausage tends to dry out."

It is difficult for the smaller purchaser to get unadulterated pork sausage. How can the purchaser protect himself? Up to 1928 the chemist knew of no certain way to determine the exact amount of water added to pork sausage. Sigler¹ published that year the results of some ingenious research and showed the way whereby a chemist accustomed to doing protein, fat, and ash determinations could, with certainty, tell how much water was added to sausages.

While the method is available for anyone, the actual tests must be made in a well-equipped laboratory and by a trained worker. The cost of testing a sample runs from \$25 to \$50. Civic groups could arrange to have the work done by a reliable laboratory. You might ask the city or county chemist to do the analysisthough I'll guarantee he will give you some plausible reason why he cannot. You can complain to the local Board of Health where you will no doubt get what is known as a "run-around." You might try telling the butcher you'll buy more sausage if you see regularly dated certificates of analysis from a recognized chemist. Butchers are sensitive to customers' wishes, especially just at this time when a surprisingly strong resistance is developing to rapidly rising wholesale and retail prices for meat. As a final gesture, you could find out who manufactures the pork sausages and call him up and ask him for the analysis of his and some of his competitors' products. won't get the analysis, but you may get a little less tap-water for the money you pay for pork sausage for a time.

There is some hope that reputable sausage manufacturers may furnish information as to just what parts of the pig go into the sausage, whether cereal is added and how much, also the information that there is no added water, and some degree of assurance that the analysis is

<sup>&</sup>lt;sup>1</sup>Percy A. Sigler, *Journal* of Association of Official Agricultural Chemists, Vol. II, page 112.

constant. This hope is vain unless there is "purchaser pressure." It is probably better to buy sausages by brand; write the manufacturer and ask him specifically just how (in terms of physical and chemical specifications) his brands are superior to others marketed.

"Absolutely pure" ingredients is an ambiguous claim. It probably means pure eyelids, pure farina, and pure tap-water. A letter asking for the analysis and inquiring whether anyone may

visit the plant is likely to give the manufacturer cause for thought. Several such letters may achieve some results. Get your friends to help you or better still get some organized group interested in the project, a good thing for consumers to work at. Ask your high school or college teacher of chemistry to help out with the tests for added starch and excess water. That would be turning chemistry to useful and important service.

CLARENCE W. WINCHELL

"Our present social system, of which advertising forms an important and characteristic element, is at the present time unquestionably on trial. Amongst the many proposals made to reform it, most have so far been based on some form of interference with the details of the economic machine, as distinct from the people for whom it works. The efficiency of the machine in its main task of supplying the varied wants of consumers is usually not in question; yet few reformers so far have set themselves the task of using this efficiency for the attainment of their purposes. It is at least possible that the education of the consumer in the mechanics of the economic process which is built up to serve his ends may awaken a deeper consciousness of the ultimate power that lies in his hands to mould this process. His aid may then be invoked to save humanity from the hardships and suffering which its operation seems to involve at present. But first it is necessary that he should save himself."

-A. S. J. Baster in Advertising Reconsidered

#### FUMIGATED GRAPES

NEWS release of the United States Department of Agriculture issued some time ago described a method of retarding the development of mold on grapes, either in transit or storage. This method, which has been developed by horticulturists in the United States Department of Agriculture, involved the "use of 10 grams of sodium acid sulphite or sodium metabisulphite placed in pads at the bottom of the ordinary grape 'lugs' or mixed with the sawdust in which the fruit is packed. These chemical compounds give off sulphur dioxide slowly, providing an extended fumigation with extremely low concentrations of the gas, which holds the fruit satisfactorily at storage or shipping temperatures for from 2 to 5 months." The government release went on to describe with enthusiasm the advantages of this new method the grape industry, though it is admitted at one place that "all grapes absorb more of the gas as the concentration is increased," the experts calmed the fears of any who might tend to look at the question from the standpoint of the consumer rather than that of the grape grower by the unproved assertion that the method "raises no public health question." statement is very casually made despite the fact that under the Food and Drugs Act the use of sulphur dioxide is unquestionably an adulteration under the law. A lawyer specially qualified in regulation of commodities in the public interest, and specifically in the Food and Drugs Act, had the following comment to make about this latest piece of "research" for industry performed by the Department of Agriculture: "The Department of Agriculture certainly passed up the health question with a mere passing reference and without any apparent study. The Administration is weak, to say the least, when it places so much emphasis on the commercial benefits of the new method and so little on the hazards to the consumer that the Administration itself is willing actively to join in a violation of the Food and Drugs Act."

Theoretically, prices are based upon free interplay of economic forces, but actually they are often, so far as their amounts are concerned, representative merely of the necessities of buyers or sellers, who may be speculators rather than users or consumers, and prices may have no relation whatever to requirements of users and consumers or their ability to buy for use or consumption.

-Walter W. Pollock in Economic Forum

HERE are many reasons why the customary raw foods are not well suited to human diet in civilization. One is the great danger of bacterial infection. Living herded up in dirty cities, and the necessity of eating food handled in bacteriologically and hygienically uncontrolled markets and fruit and vegetable stores both make for grave risk to the person who eats raw lettuce, raw cauliflower, raw cabbage, and other fruits and vegetables that when used raw cannot have their surfaces completely removed (as by peeling) before they are eaten. In Paris, where for economy the water of the Seine was pumped into mains for washing of fruits and vegetables in the markets, diseases associated with infected water (such as typhoid) were common. Poisonous spray residues, discussed elsewhere herein. are another danger of raw fruits and vegetables. They are a danger, too, with cooked foods; but the risk of getting arsenic, lead, and other poisonous metals into the system is considerably decreased with the cooking of fruits and vegetables. Unfortunately valuable mineral and vitamin substances are lost too, along with arsenic and lead, when one discards the water used for cooking vegetables—the very substances that used to be counted on to balance the diet safely against the losses of vitamins and minerals involved in pasteurizing milk, milling white flour, polishing rice, and using white sugar and canned meats, fruits, and vegetables.

The epidemic of amebic dyswhich enterv caused deaths in Chicago and other cities was carried by raw foods, and cold meat and salads cut and handled by infected persons. Moreover, moist human fecal material is used to some extent for fertilization of truck gardens, and government officers do not even dare to carry on a system of inspection and control of individual farms and gardens, or even of education of farmers and gardeners in matters directly affecting consumers' health and safety (though any degree of supervision of farm operation seems in order when an increase of farmer's income is at stake, as under the AAA). In the absence of any such inspection, it is absolutely impossible for any given person to be sure that his cabbage or lettuce has not been grossly contaminated by human fecal matter or animal excretions of a potentially dangerous character, either at the time of growing or handling. Amebic infections are most likely on raw fruits and vegetables from "Cal-Mexico. Tennessee, ifornia. Florida and, in fact, most of the Southern states." (Journal of the American Medical Association, November 18, 1933, the article on "Amebic Dysentery.")

Pin worm infections, which

are very common, especially in children, are also held to be increasing, due probably to growing use of raw fruits and vegetables.

Many argue that raw food is more natural than cooked: that those who urge a less civilized and less sophisticated food supply and believe in the necessity of revision to a more primitive system of diet must accept the principle of raw foods. But this is an argument on insufficient information. Primitive man ate raw meat in great quantities; in some regions he lived almost exclusively upon a diet of raw fish. Anyone could eat raw meat now, if it were freshly cut from a fresh-killed carcass of a healthy animal; but one does not safely eat meat which has been held for months in cold storage, or was shipped in the dirty and foul hull of a steamer from the Argentine, or in freight cars of which the housekeeping is far from that of the kitchen, or meat that was handled by dirty and hurried workmen who are driven by demands for output rather than by the requirements of sanitation and hygiene. Besides, much meat and poultry, especially canned meat and poultry, are notoriously not from healthy animals.

Raw vegetables certainly formed no significant part of primitive man's diet; raw grains and seeds seem not often to have been extensively consumed, and where cooked or baked cereal grains were much used, the health of the population was notably inferior to that of primitive groups whose dietaries consisted predominantly of meat or fish or eggs. On the other hand, raw fruits and the few vegetables which would be substantially important in the food supply in the raw state, would, when grown in a state of nature and away from cities and sewage, be as free from dangers of infection as any food man could eat. But in civilization, and in civilization at its present high peak of accelerated production and relatively reduced social and technical control, almost nothing raw and nothing unpeeled may safely be assumed fit to eat unless one knows the conditions under which it was raised, and sees it harvested, transported, and handled thereafter up to the moment it is brought to the table.

As to the supposed health value of raw foods, it is startling to discover that pigs fed on cooked potatoes throve much better than those fed on raw potatoes, and not only made much greater gains in weight on the cooked potatoes but preferred the cooked potatoes to the extent that they ate nearly two and a half times as much of the latter as of the raw ones. cooked potatoes were more than twice as efficient, moreover, as a foodstuff to produce pork. This report of the Agricultural Experiment Station at the State College of Washington (January 1934) is typical of the extent to which theories about nutrition of

farm animals are checked by actual experiment for the very practical reason that the farmer as a producer and seller of commodities will not tolerate halfbaked information that may cost him losses of money and crops. He must know that what he is doing and that the forage he is feeding will be effective for the purpose, and economical. It is only when consumers' problems are involved that ridiculous and highly theoretical assertions are allowed to go untested and yet be put into practice in diet kitchens, relief administrations, commercial and college lunchrooms, home-economics classrooms, and the like. Human nutritionists unfortunately are permitted to promulgate their pronouncements at will on the basis of the thinnest experimental and deductive studies, in which even the criterion of successful feedings-that of maximum rate of growth of the young animal-is at long last found to be a false one.

"One trick," says the Bureau of Home Economics, "is to use some vegetables raw as often as you can-in salad, or in slices or sticks, as if they were celery. Then you get all their best food values, and also a crispness and a flavor which peps up the rest of your meal. Serve carrots, turnips, cabbage, or onions raw sometimes." Such advice is plainly given in complete ignorance or carelessness with respect to infections by eggs of intestinal worms or bacteria, or protozoa, or coatings of arsenic, lead, copper, or mercury on such raw vegetables as cabbage and lettuce, and quite without regard to the digestibility of the raw food.

It is quite probable that the vogue for raw salads has much to do with the notable and frequently absurd predilection for "beauty" as a substitute for substance at table. A four-page mimeographed bulletin boosting raw salads, from the Federal Bureau of Home Economics. falls into the standard domestic science patter: "To begin with one of the prettiest salads you can think of, put one or two green curling leaves of new cabbage . . . cottage cheese with chopped peanuts mixed in." In correspondence the official leader of the American home economists admits that "the possibility of infection from the use of raw salads is, of course, so great in certain areas as to prevent their use. In general, in this country, the chances of infection are not great, except in the case of foods like watercress, which may be grown in infected streams. This can be avoided by the use of mild antiseptic solutions which available for washing these." The bulletins recommending the use of raw foods, and these are as frequent as they are unscientific, maintain an unbrokenly cheerful attitude and do not mention the unpleasant circumstances which come out in the correspondence quoted, that in

some regions raw foods are found too dangerous for their use to be feasible. The statement that the danger can be avoided by the use of mild antiseptic solutions is an incorrect one and dangerous to consumers. A competent bacteriologist of whom inquiry was made on this point states: "... the business of making infected watercress safe with a little antiseptic washing is certainly unsound and unsafe. I certainly would not recommend the use of any vegetable, including watercress, grown in a stream known to carry infection or to be polluted

by sewage. There is absolutely no justification for growing or using food stuffs known to be infected even though an attempt is made to disinfect. Of course disinfection in the case to which you referred would be very incomplete and highly worthless under the conditions stated."

A German physician, in the days before Hitler's ascendency, summed up the situation very well when he said: "Good cooking is considered to be one of the present-day essentials in every German household and institution. The craze for raw food should not be indulged."

# Unfair Advertising Practices As Admen See the Problem

The following copy practices are unfair to the public and tend to discredit advertising:

- 1. False statements or misleading exaggerations.
- 2. Indirect misrepresentation of a product, or service, through distortion of details, either editorially or pictorially.
  - 3. Statements or suggestions offensive to public decency.
- 4. Statements which tend to undermine an industry by attributing to its products, generally, faults, and weaknesses true only of a few.
  - 5. Price claims that are misleading.
- 6. Pseudo-scientific advertising, including claims insufficiently supported by accepted authority, or that distort the true meaning or application of a statement made by professional or scientific authority.
- 7. Testimonials which do not reflect the real choice of a competent witness.

From the "Resolutions passed by the Advertising Federation of America" at its annual convention in Boston, June, 1936.

#### CONSUMERS AND MASS PRODUCTION

HO DOES not know the tasteless, unnatural properties of canned peas? Or the flaccid, absorbentcotton feeling of most of our commercial white bread? Or the insipid, tangless, and faintly quality chemical of cheese? Or the sour surprise encountered in an orange whose artifically colored peel simulated ripeness? The reason back of all these dietary disappointments is centralized mass production and its need for artificial preservation of foodstuffs to permit them to reach the outermost borders of a national or international market, upheld by national trademarking and advertising, and, after reaching these distant places to permit the foodstuffs to remain for varying and often very long periods in a seller's display.

Mass production in foods must undergo a drastic decentralization if food is to continue to serve man's highest efficiency. From the standpoint of the workmen in food factories, this seems no problem at all, any more than it is a problem from the standpoint of processing and distributing concerns achieve yearly greater centralization and monopoly control.

Good food spoils rapidly. This is a consumer's axiom. From the standpoint of the owners of the great food monopolies and giant processing factories, well as from the standpoint of those who think exclusively in terms of a more equitable distribution of money income, the consumer's axiom is the reverse of "truth." The massing of bread production in a great central bakery from which bread is distributed to more than a thousand communities is a technology not dictated or developed by the interests of consumers. same technology includes the massing of workmen at the central manufacturing plant, and this, in the eyes of trade-unionism and socialism, makes for a growing consciousness of solamong workers thereby facilitates their union-What's meat to the monopolist manufacturer likewise to the trade-unionist in his plant is, however, poison to the consumer. A conflict thus arises between man, the producer, and man, the consumer. There can be no reasonable debate about which of the two interests of man is of transcendent importance and which of the interests should be controlling in social organization. Man does not live to work; he works to live and to consume goods and services.

The technology of centralized mass production and processing which has at its core the chemical and physical preservation of foodstuffs, such as bread, milk, fruits, and vegetables, is from the standpoint of the consumer an evil not mitigated at all by its usefulness to monopoly

owners or to trade unions.

## THE A & P BEGINS TO GRADE CANNED GOODS

now carry a considerable number of canned goods which bear the U.S. Government grades on their labels. The concern is also making what appears to be a well-contrived effort to educate consumers in the difference between the various grades and their uses. This forward step in the direction of giving consumers more information about the goods they buy may be a potent influence in bringing other dealers and canners into line.

In the A & P Menu of January 27, 1936, Paul M. Williams, writing on "Do You Buy Canned Vegetables by U.S. Government

Grades?", says:

"When the United States Department of Agriculture several years ago suggested that canners place 'Grade A,' 'Grade B,' 'Grade C' or 'Grade D' on their labels, its purpose was merely to take the guesswork out of selection by the consumer.

"These four grade designations, A, B, C, and D, were clearly defined in technical terms so that any canned vegetable would clearly fall into one or another group. These technical definitions are naturally lengthy and complete, but I shall endeavor to sketch very roughly a description of various grades of vegetables as an example and a guide to the woman selecting canned foods for her family. For brevity I shall confine myself to Grade A and Grade C descriptions, in household language, on the four most widely sold items, Tomatoes, Peas, Corn and Stringless Beans.

"Grade A canned tomatoes are select, whole or almost whole, uniformly good red color, practically free from pieces of skin, cores, blemishes and other defects, and with the typical flavor of naturally ripened tomatoes.

"Grade C canned tomatoes need not be whole, but are in fairly large pieces, are reasonably free from undercolored parts, etc., and fairly well fla-

vored.

"Grade A tomatoes are not nearly so plentiful as the lower grades and require greater care in selection, and therefore you must pay a higher price for them when you wish whole tomatoes for salads or baking. The juice can be used for cocktails or sauces. Grade C tomatoes are good for stewing, scalloping, soups and all cooking purposes."

There is a current movement in the food industry to designate grades on the labels of canned and packaged foods, consonant with recommendations of the Department of Agriculture. This step is just as important to ethical trade practice in the retail field as is the requirement by the retailer that the wholesaler grade his product.

ost information in newspapers and maga-zines about electric lamps and illumination is shrewdly biased in order to increase the number or wattage of lights, or the number of lighting outlets, or the intensity of the illumination used; and dire threats are made of harm to children's eyes, etc., if this is not done. Consumers' interests will be best served when the living room is lighted, as was customary in earlier times, before science became so extensively a servant of industry, by more localized lighting and at lower illumination levels than a drafting room, watch factory, or a department store show window. In the opinion of one expert, "there is no valid evidence . . . to support the suggestions that the normal eye needs from 25 to several hundred foot-candles of artificial illumination for easy and efficient reading of legible print. ... For all but abnormal eyes and the reading of illegible print, 10 to 15 foot-candles furnish an ample margin of safety in brightness of illumination."

There is a good deal of quackery in respect to illumination appliances. The adaptability of the human eye is such as to render absurd much ingenious salesmanship which passes for science and engineering in lighting fixtures. If the intensity is sufficient, and "spotty" light distribution is avoided (light on the work grading too sharply from bright to dim), little consideration need be given to the various special claims for unique and ex-

pensive lighting fixtures.

There are hundreds of different forms and types of lamp combinations and shade and reflector systems for which excessive and unwarranted claims. either for efficiency or the quality of light, are made. Demand proof for even the smallest claims and refuse to buy without unbiased, non-commercial, technically competent proof. In particular, refuse electric light fixtures of every kind sold by house-to-house salesmen. Many shrewd tricks are carried out by such salesmen to convince the technically uninformed; e.g., in demonstrating the latest marvel in the field of lighting equipment, it is often the practice to put a 110-volt lamp on a 120-volt circuit, giving highly impressive and allegedly far more efficient illumination, but cutting lamp life to 1/3 normal.

Simple aluminum (or white) painted metal reflectors or conical opal glass or green glass shades with opal lining set three to four feet or more above the desk will serve very well at trifling cost compared with expensive commercial lighting accessories.

Glass diffusion bowls should be thick enough so that the bright central portion of the filament in the lamp bulb cannot be

distinguished. They should be free from decorations or relief of any sort likely to accumulate dust or introduce inequalities in

lighting distribution.

Although indirect lighting fixtures diminish glare, they require, on the whole, twice the electricity to achieve the same effective illumination intensity as that given by direct lighting fixtures.

RECOMMENDED

I.E.S. Study and Reading Lamps
(Various manufacturers;
lamps identified by I.E.S.
[Illuminating Engineering Society] certification tags) Superior in illuminating efficiency to the conventional floor

and table lamps. We recommend these for use only with 50- or 60-watt bulbs, with which a 3/4-in, socket extension (10c or 15c at any electric store) should be used to bring the bulb to the proper position in the lamp. (The 100watt bulbs specified for use with the lamps give considerably more light than is necessary for good vision-enough, indeed, to be objectionably bright in some uses; their being specified may be considered part of the systematic effort of utility interests to increase electric consumption at any needed sacrifice-to consumers.)

## FLASHLIGHTS

DECAUSE of the rapid and pointless change of flashlight "models" to stimulate sales, it is of more value to the consumer to have some idea of desirable and undesirable features than to have a list of recommended flashlights which may be non-existent or unobtainable in stores to which the consumer has access when he decides to buy one.

There are two types of flashlights which for convenience will be referred to as the tubular type and the lantern type. The tubular type (long cylindrical shape) is the more common type and can be held and operated easily with one hand. The lantern type

(hung from a bail handle) is rapidly gaining in popularity; it can be suspended by its handle or set down on its base, and may be designed (in some cases is so designed) to have two bulbs, either of which may be operated at will by throwing the switch; this is a very desirable feature, in the not unusual occurrence of one bulb burning out when light is most needed. For general usefulness, in accordance with the foregoing considerations, where a flashlight is used regularly or frequently, we suggest a lanterntype flashlight having two bulbs; the arrangement is usually such that one gives a spotlight and the other a broad or unfocused light.

A cheap tubular flashlight using a "crystal" type bulb (a solid sphere of glass fused upon the base holding the filament, which serves to concentrate the light without the use of a reflector) may be sufficient for emergencies, such as replacing a burnedout fuse at home or locating trouble in an automobile. Metalcase flashlights are quite satisfactory and are considerably cheaper than fiber-case lights of similar type.

A 2.5-volt bulb, operated with two size-D cells (each cell 11/4" diam. x 21/4" long) in series, gives sufficient light for most purposes, so that three or more cells may, according to present information, be considered a luxury at increased operating cost (an important item as energy from flashlight batteries costs in the neighborhood of \$15 per kwhas against about 6c per kwh, average U.S.A. price for electrical energy). An investigation carried out for Consumers' Research showed that for a given bulb current, the cost per hour for operation of a flashlight increases approximately in proportion to the number of cells employed, the amount of light produced increasing at a slightly greater rate (so that the cost per unit of light output becomes.less with the larger number of cells). Wherever the greater intensity of light is not actually needed, therefore, it will be most economical to use not more than two cells. (For information on economically obtaining increased

light output, see Flashlight Bulbs.) The use of flashlights containing more than two cells connected in series is not safe inflammable gases near vapors, e.g., gasoline, because of danger of ignition by sparking at the switch; in addition, the incandescent bulbs should be protected by glass covers when used near inflammables to give at least a minimum degree of protection against explosion in the event of accidental breakage of the bulb. Small-size flashlights. e.g., the fountain-pen type, which use one or more cells smaller than size D and bulbs less than 2.5 volts, are more expensive to operate and should not be used except where very small size is of first importance.

Following are some of the undesirable features which signalize a flashlight as being of poor construction or design. Glass covers or lenses are often unpolished, or are foggy, or contain air bubbles which decrease the amount of useful light; this is easily determined by inspection. (Light by the flashlight method is far too expensive to waste by poor transmission through the glass.) The bright spot thrown by the flashlight may have a strongly marked dark center. This is a decidedly disadvantageous feature in many uses. The extent of the defect is easy to note by holding the lighted lamp about three feet from a plain white surface. The switch may be of poor electrical design, causing poor or unsteady contact. This may be detected in the most obvious cases by moving the switch slightly or unscrewing the cap one turn and observing whether the light either fails completely or flickers on and off. The switch may be of poor mechanical design or constructed of thin and weak materials. For long life, it must not be "tinny" in construction.

#### RECOMMENDED

Delta Buddy Flashlight Lantern (Delta Electric Co., Marion, Ind.) \$1.50 complete; one bulb. Delta Juniorlite \$1.50 less cells.

A well-made, strong, convenient, lantern-type flashlight with 2 bulbs; controlled by a 2-way switch; both bulbs protected by glass covers; 2 size-D cells.

Delta Powerlite \$3.80 complete. Similar to Delta Juniorlite but larger. Uses 6-volt lantern battery, or 4 size-D cells in adapter available for 50c extra.

## Flashlight Batteries

An intermittent life test was conducted by Consumers' Research on ten different brands of size-D (1¼" diam.) batteries. The results of this test were made the basis of the recommendations listed below.

#### RECOMMENDED

Best (U.S. Electric Mfg. Corp.; distrib. United Cigar Stores) 5c.

Merit (U.S. Electric Mfg. Corp.; distrib. F. W. Woolworth Co.) 5c.

Aladdin (Distrib. G. C. Murphy Co. and S. S. Kresge Co.) 10c.

## Flashlight Bulbs

The average life of a 2.5-volt flashlight bulb (rated 14 hours at normal voltage) was found to be about 45 minutes when tested at three volts (the voltage delivered by two standard, size-D cells when nearly new). Japanese bulbs were found to be less uniform in life than Mazda bulbs but had on the average about the same active life. Where Japanese and Mazda bulbs are the same price, Mazda bulbs were found preferable, but where Japanese bulbs are 5c and Mazda bulbs 10c, it was found more economical to use Japanese bulbs. Don't buy "crystal" type bulbs for reflector-type flashlights (except when reflector has become corroded); crystal bulbs are somewhat inferior to plain bulbs in amount of light produced.

The average use of a flashlight is probably such (less than 1/2 hour total per month) that the consumption of energy from the battery by the bulb is an almost negligible factor in influencing the life of the battery, as compared with self-deterioration. Consequently, if the consumption of energy is increased somewhat by using a bulb which takes more current, the increased light is obtained at practically no additional battery cost, and only a slight additional cost for the bulb. The No. 245 Mazda 2.4volt bulb takes 0.5 ampere as compared with 0.3 ampere for the No. 14 bulb and will give about 60 per cent more light. Where a flashlight is used more

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than 1/2 hour per month, however, best economy will be obtained by using the No. 14 bulb. If more light is required than is given by the No. 245 bulb, the output may be somewhat more than doubled by using the No. 31, 0.3 ampere, 6-volt bulb with a 5-cell flashlight, at about 20 per cent increase in cost per hour for use of more than 1/2 hour per month. For use of less than 1/2 hour per month, however, a further increase of approximately 65 per cent in light output may be obtained at slight additional cost per hour over that of the No. 31 bulb for the same amount

of use, by employing the No. 605, 0.5 ampere, 6-volt bulb, with a 5-cell flashlight.

Some difficulty will probably be experienced in identifying bulbs in retail stores either by *Mazda* numbers or by current rating. The following are voltage ratings usually stamped on the bases, the number here given is the lamp number they correspond to in each case: 2.5 volt, No. 14; 2.4, No. 245; 6.2, No. 31; 6.0, No. 605. Bulbs with a blue glass bead (equivalent to No. 14) are suitable for use only in non-focusing flashlights.

## Recognize the Consumer's Interest

In the affairs of everyday life, it is interesting—but irrelevant—that consumers may also be producers or laborers. The point is that in the production and sale of coal and shoes, rugs and rags, hymn books and movie tickets, the producer and the consumer are distinct and interested parties. In every industry—from the baking of bread to the sale of chewing gum—quality, cheapness, and abundance are values as rightfully entitled to protection as the standards of labor or the integrity of profits. If the standard of living of a whole people could be lifted universally and automatically, then the consumer's interest might be dissipated into a vague general good. But so long as we carry on by detailed accommodations all along the line the consumer's interest demands recognition.

Walton H. Hamilton in Survey Graphic

#### PIONEERING IN CONSUMER EDUCATION

THERE is no field of social study which has the advantage of working with such interesting, easily accessible, and concrete materials as those which are available for the study of consumers' problems. A few forward looking educators have had the imagination to utilize the exceptional educational materials available in the field of consumers' goods as a method of introducing students to the problems of the business society in which they will live and work. In the High School of Barstow, California, the late instructor in consumer education, Mr. Jack N. Miller, put on a splendid "Consumer Education Exhibit" which deserves an extended description as a piece of genuine trail blazing in consumer education. The principal of the Barstow High School, Mr. Gordon W. Park, as well as Mr. Miller, deserves the congratulations of all consumers for his support of this valuable demonstration of the possibilities of consumer education.

Fifteen demonstration tables, each with its student exhibitor, were arranged in the High School auditorium. Crazy quilts of advertising copy were spread over the tables and hung throughout the auditorium. Dozens of signs, executed by the Art Department of the High School, reinforced the display with poignant remarks, pointed denunciations, and helpful suggestions. Spread over an entire

corner of the auditorium was an assortment of photographs of the Department of Agriculture's "Chamber of Horrors Exhibit" which the Department used at one time in connection with its support of the proposed new food and drugs act.

The fifteen exhibitors, one by one, gave from their well-filled storehouses of information. They offered commodities, advertisements, and tabulations in evidence. Each youthful exhibitor was fully aware of the abuses and frauds of the system against which he offered his measure of proof: its excessive profit-consciousness, its sole dedication to price and turnover, its needless scarcity, its counterfeits and adulterations, its mendacious advertising and high-pressure salesmanship. The students knew wherein the system fails consumers seeking goods for use, durability, and satisfaction; they knew of that trial and error. grope-in-the-dark process called buying; of the constant experimentation with questionable qualities; of the hoodwinking, chiseling and gypping that is of the fabric of so much business enterprise.

A little mistress of ceremonies ascended the platform to introduce the demonstrators who were distributed at their tables throughout the auditorium.

The first demonstrator pointed out the costliness to consumers of brand names, and gave tangible evidence by displaying products in her hand. In addition, she noted the trickery employed in

deceptive packaging.

Next, one of the girls covered the subject of cleaning agentsthe varieties that are dangerous to handle and smell, the outrageously expensive kinds, and the type that is unnecessarily abrasive. She discouraged home drycleaning with explosive cleaners. She placed one brand, typical of harmfully abrasive household cleaners, under the microscope for all to see for themselves. She manufactured an ammonia stronger and far cheaper than the proprietary brands. She presented certain common chemicals, such as trisodium phosphate as useful substitutes for the weak and high-priced trademarked representatives of their families for certain household uses.

The next exhibit told a sordid tale of cosmetics. The demonstrator adduced facts to show the ease of compounding cosmetics, their excessive price, and their sales appeals to snobbery.

Another exhibitor sketched the poison hazard. Lead, arsenic, copper, and other poisons contaminating food were dwelt

upon.

The next exhibitor undertook to rate leading periodicals as to the truthfulness of their advertising. To a weekly of very large national circulation, she gave a rating of 20 per cent truthfulness; to a widely-distributed farm journal, she was able to

concede only 12 per cent veracity.

One student, a budding chemist, manufactured tooth powder, tooth paste, brilliantine, a hand lotion, etc., giving his manufacturing costs as contrasted to those in the trade. He turned a few simple ingredients which are dispensed by drug stores into products which, when identified by trade-marks and handsome packages, take on mystical properties. He even gave them distinctive odors and richness of appearance so as not to be gainsaid when he claimed to have duplicated proprietary brands for a fraction of their customary selling price. He recommended a common household material as the "World's Best Tooth Powder," and assailed the extravagant claims of dentifrice makers and beauty experts.

Another student gave a convincing talk on meats, with both charts and samples. He explained grade-markings, misconceptions as to the most desirable age of the animal for good meats, and

other invaluable data.

The next performer was a girl who diagnosed canned goods. She opened the cans before her audience and proceeded to explain, point by point, a score of ways for judging canned foods.

Next came a coffee and tea specialist, a young lady who exposed "dating" schemes, demonstrated the best way to make a cup of coffee, explained how to buy coffee, and in what condition. She gave similar information on tea. Coffee and tea lay in little piles before her. She posted her audience on a number of facts that are known to but a few restaurateurs and fewer homemakers.

Blankets and heating were the text of the next advocate of consumer-learning. It was explained that 100 per cent virgin wool gives the only complete satisfaction. The heat supply of the home was rated in the matters of cooking and warmth, with the respective costs of gas, electricity, coal, and wood.

Following this, came an examination of the difference between labels affixed directly to products, and the advertising of the same product. Aids to digestion, mouth washes, and other products were cited as making extravagant and omnibus claims in ads while making very modest ones or none on their labels.

The next demonstrator dealt with testimonials and gave many exhibits.

Still another display presented typewriters, the preferred make among which was made known together with the reasons for its high rating; razor blades, with the superior *Dublekeen* and others on display; and automobile literature on the three popular-priced cars. The speaker rated the cars as to price per pound, depreciation, the trick of f.o.b. price misrepresentation, braking ability, finish, comfort, roominess, and other values.

Silk hosiery was next in line for discussion by a student who had carried her inquiries far into the methods of manufacture and means of consumer-selection. She explained the process of true fashioning, gave desirable weights for given wear, told about gauges, explained how the manufacturer skimps on material, and illustrated cloth tops, plating, sizes, elasticity, dyes, and thread twist.

Another exhibit presented a bolt of silk on which reposed a tin can. A placard said: "More Tin in the Silk than in the Can." On this display table, also, were a dozen bottles of expensive and fancy inks. They formed a circle in the midst of which was a large beaker filled with home made ink. An accompanying sign read: "Make Your Own and Better for a Fraction of Retail Price."

Books, pamphlets, and mimeographs dealing with consumer questions filled another table. The whole of it had been indexed by two energetic students. Their card index was in view.

Few will question the remarkable possibilities for education toward an understanding of the kind of society we might reasonably establish, by the use of methods such as were employed by this California teacher. Many volumes of abstract and statistical studies of capitalism or of treatises on the nature of the state could not accomplish more than a small fraction of the learning acquired by these methods. Is there any good reason why the Barstow, California, project should not be duplicated in a thousand high schools?

#### A FEDERAL DEPARTMENT OF THE CONSUMER

THERE has been enough dilly-dallying in governmental policies affecting the welfare of the consumer. Consumer boards and projects have been plentiful and ineffectual during the first New Deal Administration. All efforts to strengthen the nation's food and drug laws have so far been unproductive. Senate Bill 5 which perished with the adjournment of the Seventy-fourth Congress was so little of an improvement on the Wiley Food and Drug law, and in some respects actually weaker than the existing law, that enlightened consumers pressed for its defeat. The new Congress is certain to see the introduction of a new food and drug measure. If it should prove to be as undesirable as the oft-amended and progressively Copeland-Tugwell weakened bill, there is the grave danger that its passage will mean the definite shelving of consumer legislation for many years to come.

The time has arrived for positive and constructive action. This is to be achieved through the establishment of a federal Department of the Consumer having powers coordinate with those of the State Department, the Post Office Department, and the War Department. By this we mean powers that are substantial and not merely the shadows of authority which are possessed by bureaus whose

functions are limited to investigating and writing wordy reports which few people read. The consumer agencies which have been set up so far under the New Deal Administration have possessed only the shadows of authority. There is no good reason why a Department of the Consumer should not be the most important of all government activities. Vastly more people are affected by matters that belong within the scope of an effective Department of the Consumer than are affected by any other single governmental agency. Such a Department working vigorously in the interests of consumers would be the beginning of a complete re-orientation of government to the welfare of 125,000,-000 consumers.

Numerous bureaus and subdepartments of the federal government are now concerned in part with matters that directly affect the welfare of consumers. In the Department of Agriculture, there are the Food and Drug Administration, the Bureau of Home Economics, the Bureau of Agricultural Economics, the Bureau of Animal Industry, and the Bureau of Dairy Industry. Under the Department of the Treasury, there is the Public Health Service. which numbers among its numerous functions that of presenting a standard milk ordinance for the adoption of municipalities. In the Department of Commerce

there is the Bureau of Standards. A part of the function of the Department of Justice is to handle prosecutions growing out of violations of certain laws enacted for the protection of consumers. In the Department of Labor there is the Bureau of Labor Statistics which publishes reports comparing price trends and consumer purchasing power. Other agencies which are independent of the principal federal departments of government are: (1) the Federal Trade Commission whose powers to protect consumers are the very indirect ones of issuing cease and desist orders against unfair trade practices (where, however, it is impossible to prove that an unfair trade practice has damaged a business competitor, there are no powers lodged in the Federal Trade Commission to protect consumers as such); (2) the Consumers' Counsel of the A. A. A., which publishes the Consumers' Guide; (3) the Consumers' Division of the National Recovery Administration, established in August, 1935, after the "reorganization" of the N. R. A.; (4) the Bureau of the Census, which compiles monthly statistics on the production and sales of various consumers' goods; (5) the Office of Vocational Education, which issues some general material on consumer buying for use in the schools.

It is, therefore, apparent that there are already numerous government agencies whose functions include some degree of attention to problems which directly affect the welfare of consumers. In almost all cases, however, these agencies have other and conflicting functions, namely to protect the interests of producers. In some cases, they are subordinate within federal departments which have the principal function of protecting the interests of producers, such as the Food and Drug Administration in the Department of Agriculture and the Bureau of Standards in the Department of Commerce. So far as they hit the mark of the consumers' problems at all, they are an antiquated blunderbus scattering its weak fire all over the landscape.

Those who are interested in studying precedent in the establishment of government departments will do well to read the annual report of the Secretary of Labor for 1920 which gave an excellent summary of the early history of the struggles for a Department of Labor. One of the earliest resolutions, adopted by a conference of labor leaders at Louisville, Kentucky, August

1865, read as follows:

"Every department of the Federal Government is now and has been officered by the professional men, business men, or manufacturers. They are or have been employers of labor or counselors of employers. Naturally their sympathies are not with labor. There should be at Washington a Department of Labor to be officered by men who are of and with labor, the duty of that

department to be the guarding of labor interests in every way now known or which thereafter may become known."

With the substitution of the word "consumer" or "consumers" for "labor," the resolution is a correct statement of present facts and is closely adapted to the present need. The struggle for federal recognition on the part of labor was long, and not until 1913 was the independent Department of Labor with a Secretary in the Cabinet a realized fact of government.

A Federal Department of the

Consumer would bring together in an independent department all of these existing "consumer" agencies and coordinate them for the greater protection of consumers. In many respects new powers would have to be assigned and existing powers strengthened in order to make enforcement possible and sure. The establishment of such a department would be no mere gesture, but would represent an advance in enlightened government such as has not occurred since the enactment of the 15th Amendment.

#### ADNESIA

I believe there is in the practice of Advertising today less intellectual integrity than I have known at any time in my experience. . . . On a hundred printed pages we encounter incredible testimonials, fantastic boasts, spurious claims, pseudo-scientific "discoveries"-all of the tawdry, tinselled appanage of a third-rate street carnival. . . . Too many of our creators of advertising, it would seem, have forsaken the mansions of logic to wander capriciously in a weird new statea state that can be described only by the coined word "Adnesia." Only in this strange state are cigarettes viewed as an aid to health; only here do kindly professors go about counseling mothers in the delicate matter of administering laxatives. Where, except in "Adnesia," could one reasonably expect to find Romance in a package of soap chips, or detour the divorce court by the simple expedient of changing to a new brand of tooth paste? And surely only one long-resident in this crazy state could have conceived the cock-eved notion of borrowing the testimony of dimpled and diminutive Shirley Temple to exploit a two-ton motor truck! There, indeed, is genius at its dizzy eminence.

From a speech by Maxwell Droke, Indianapolis advertising publisher, delivered before the annual gathering of the Advertising Federation of America, June, 1936, in Boston—an address entitled "We Might Try Truth."

## SELECTION AND CARE OF FURS

HEN buying furs, insist upon a written guaranty stating the kind or kinds of fur which have been used. If possible, have another furrier than the one from whom the garment is to be purchased give you his opinion of the quality and nature of the skins. Skins occasionally have the name of the animal stamped on the back; look for this. If the fur is an expensive one, invest what will be a very small percentage of its price in a microscopic examination. A textile laboratory can make the test for you, or better still, try to persuade your local high school teacher of biology to use some of the taxpayers' funds to set up such a service for your community. The characteristic appearance of various kinds of fur under the microscope is given for many of the common species.

Unless you want a coat which provides only one season's wear, avoid furs which are designated by fanciful names rather than by the name of a real animal. The fur garment dealer's zoology includes many species which live only a year in the fur language, and sometimes an even shorter time in your closet or on your back. There are hundreds of names for rabbit, dog, and cat, with just enough similarity to names of the more expensive or more durable furs to mislead the consumer.

"Blending" is a process (the effects of which are likely to disappear after wear) by which color tone is changed. Get a written statement from your dealer specifying whether or not your fur has been so treated.

Imitations of silver fox furs, made by gluing white badger hairs one at a time into a red fox dyed black, or into some other fur, are common. These are known as "pointed fox." The durability of fox is greatly reduced by the dyeing.

To test whether a fox skin is of good quality, drape it over the shoulders — the guard hairs should be so thick that there

seems to be no marked separa-

tion.

Make certain that the sleeves have not been shortened or narrowed to the splitting point. Examine the quality of the fur on parts of a garment which do not show; pieces beneath the cuffs, in the neck of the collar, or under the lapels. Inferior skins which have been stretched too thin or which are not well haired. or even skins from an entirely different animal, are often used in such places. See that the lining is not short in the body of the coat or sleeves, and that the interlining is a good one. Examine the back sides of the skins. There should not be many seams (the number depending on the size of the animal to some extent), as these are an indication that scraps of fur instead of

whole skins have been used. Feel the leather back to see that it has body and is not too thin; thinness is an indication of the trade's trick of stretching the pelt to make the piece larger. Some of these points are of course more easily verified in a custom-made coat, but many stores will sell coats on which a small piece of lining has not been sewed down, and many will, if the customer insists, reopen the lining over a small area to allow examination. Even if a piece has been left open, it is well to insist that another place be ripped slightly, since the part which has been left exposed may be a special one provided as a show piece. The part examined should, if possible, be a hidden part, one of those mentioned above as likely to have been slighted in quality.

Be sure to secure a written guaranty covering the replacement of defective skins and repair of rips for a year or two after date of purchase, and try to buy from a dealer likely to remain in business at least that

Cheap furs are likely to have been dyed with diamine dyes. This is notably true of browns and blacks. Some of these dyes, especially the much used paraphenylendiamine dye, are capable of inducing intractable skin diseases, asthma, or both. Regardless of price, some dyed furs may prove to be excessively expensive because of ill health subsequent to their use. In seeking

written guaranties as to the quality of a fur, obtain statements as to the absence of irritant dyes, or of all dyes. Claims for injury from fur dyes may be proved ordinarily through appropriate tests for sensitivity, carried out by a physician. Cases thus proved are usually settled by fur dealers, in their desire to avoid unfavorable publicity.

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Furs which have been allowed to get wet will lose their softness and flexibility and should be given an oiling treatment. They should never be hung in a closet or put near a radiator to dry.

If it can be avoided, furs should never be hung in a closet jammed with other clothes. If they are so hung, a bowl of water in one corner will help to keep them from drying out.

A comb or hairbrush should never be used on furs, but shaking is good for them. This is not only to open up the fur fibers and "fluff" it out, but it is also a reasonably safe insurance against moths.

There is an advantage in storing furs for the summer with a reputable furrier, specialty shop, or department store, in that they offer some assurance against fire or burglary. If you don't want to go to the expense, the government pamphlet Clothes Moths and Their Control (Farmers' Bulletin 1353, 5c from the Supt. of Docs., Washington, D.C.) gives pointers as to how to protect against moths.

It makes little difference

whether a furrier or dry-cleaner cleans your furs so long as he uses safe processes and applies them carefully. In fact, we are informed, many furriers send the furs brought to them for cleaning to a dry-cleaner. Inquire into what cleaning methods your furrier or dry-cleaner uses.

#### RECOMMENDED

Dry-cleaner's method: The best dry-cleaners remove the lining, cleaning it and the fur separately, using the usual drycleaning solvents. Oils are rubbed into the pelts after cleaning. The oiling of the pelt is perhaps the most important part of this process, as the oils worked into the fur during manufacture will in time lose some of their effectiveness and the leather will become papery.

Furrier's method: What is known as the furrier's method is to clean by the use of sawdust or some other dry powder. Furs so cleaned need to be sterilized in a sterilization cabinet.

## WOMEN'S WINTER COATS

There are at least seven important factors involved in the purchase of a dressy or sports wool coat which should be carefully determined by a woman before going into a retail store to make the purchase. These are in brief:

1. The use to which the coat is to be put. This may include outdoor manual work, business, sports - active or "spectatorsport," and social or formal wear.

2. Fit and comfort for the wearer. Consider whether the coat drapes or hangs well on the body, protects against exposure, provides freedom for movement of all parts of the body, especially arms and legs, appears to have necessary weight for warmth, and is suitable to climatic and general living conditions.

3. Cleanliness. Is the coat repellant to dust, moisture and perspiration? Other factors include the amount of personal care required and the ability to undergo dry cleaning well at reasonable cost.

4. Durability. Is durability of importance to you? If so consider the following:

a. Fabric and fur

b. Linings and trimmings

c. Workmanship

d. Ease of keeping in repair

5. Style and Fashion Qualities. Is the coat intrinsically good looking and in conformity with current fashion and customary standards? Does the coat provide the opportunity you desire for expression of your individuality?

6. Relation of Coat to Entire Wardrobe. Will the coat be in keeping with the quality and

style of other garments with which it may be used? For proper economy of clothing consumption, buy only necessary or truly useful coats. Idle coats to be left hanging in a closet cost money, and from both a physical and fashion standpoint deteriorate rapidly.

7. Cost of Coat. Does the coat represent genuine value by customary standards, and is its cost within proper limits of the wearer's purchasing power available for apparel? From a standpoint of wear life, it is unquestionably more economical to buy a coat priced at \$60 and under than to pay from \$60 to \$150. The number of years' wear in either case will tend to be approximately equal, since the fabric used in a \$60 coat may well be used in any of the higher-priced brackets. In any event, the difference in fabric cost to the manufacturer would be less than \$4 per coat.

The answer to the question of coat values is dependent upon such intangibles as style, personal satisfaction, appearance, and fineness of detail. These factors along with economic circumstances will determine the answer for the individual woman.

Only women interested in efficient buying and use of coats are advised to read further, as women who buy only for style and fashion will discard their coats at an early date and at correspondingly high cost. To this latter group, durability and wear are of little interest.

1. Know definitely what priced coat you wish to buy and for what purpose it is to be worn.

2. Make up a list of reliable retail stores and plan to see the coat stocks at each one so that you will be thoroughly familiar with the merchandise being currently offered in the market.

3. Be prepared to write down prices, numbers and other notes about various coats seen, so that final selection will be simplified and rendered more certain.

4. In each store be sure to see all models at a given price range. Learn all that the salespeople will tell you, at the same time being on guard against erroneous or false information. In order to further the movement toward labeled merchandise, demand of store managers and proprietors that coats have tags on them giving the name of the cloth manufacturer along with full details as to fiber content, weight, tensile strength, thread count, etc. Likewise demand full details as to lining and fur.

5. Make final choice of a coat only after thorough comparisonshopping for a garment which completely fills your requirements.

6. In making final purchase, consider the cost of credit terms versus paying cash. It is frequently more advantageous to "charge it," thus giving you the use of your money over a longer period of time; and also in the event of a needed adjustment you will unquestionably receive more liberal consideration.

# THE CONSUMER AND THE FARMER— BOTH GET GYPPED

OME years ago, a study was made by Consumers' Research on 20 samples of ice cream purchased at various drug stores, candy and stationery shops and cafeterias in New York City, in a middle-class neighborhood swarming with children. Though ice cream should not contain more than 50 to 100,000 bacteria per gram, 35 per cent of the samples tested contained more than 100,000. The worst two showed 1,000,000 and 7,500,000 germs per gram. Besides, 35 per cent of the samples contained colon bacteria, an indication of most dangerous, disease - breeding contamination by filth. The well-to-do had no guaranty of safety either for themselves or their children, for several of the highest priced samples showed the worst bacterial contamination. Three of the samples, two cheap and one rather high priced, were fit only to be classed as dilute sewage, and, if we had in New York a functioning health department, would have been so classed, and their makers and vendors penal-

Commercial ice cream, uncontrolled by food laws, is made with dried skimmed milk, dried egg white, artificial flavor, artificial color, corn sugar, and, indeed, almost anything but honest milk and cream, fruit flavor, eggs, and true sugar. Further-

more, modern ice cream nearly always contains a gelatine or gum thickener (which favors germ growth) to facilitate the beating into the mixture of a great quantity of air so as to double its volume; indeed the formulas used in making ice cream are largely determined by the problem of getting the resulting product to hold as much air as possible, not by an intent to make a product which is good to taste, thoroughly wholesome, and free from harmful bacteria. All this skilful trickery cheats the farmer and consumer alike. The consumer pays the same amount for the product though it were not half air; he eats air, germs, and gelatine instead of milk and cream as he supposes; and the farmer sells less than half as much milk as he might have sold if a shrewd and sharp business corporation had not been between him and his market.

No one seems to ask, in considering the causes of the depression, and the hundreds or thousands of proposals which have been offered to cure it, just why it has come about that the farmer and factory worker have continually produced more, and always for their work have received less and less in purchasing power. It seems to me only reasonable that before trying to cure the depression by taxing

consumers—for example by setting up the allotment plan, or one of the other farm relief plans—someone should have made it his business to see who got the purchasing power which farm and city workers lost, and which a great proportion of all consumers lost with them.

Farmers have pretty much remained unorganized; the lone or family operator of ranch or farm is still the normal social and economic unit in a country with manufacturing and selling organized into half-billion and billion dollar corporations with networks or branches and agencies reaching into every state and territory and even into foreign countries.

The farmer and worker and their friends in Congress have fumed about these giant corporations, and their power to override and to tax the individual; have stormed against the economic domination of the great packers and food manufacturers; have tried in vain to stop the spread of the chain store, which has swallowed up the little merchant everywhere it has gone. On the surface, and in some cases, the consumer has gained from these developments; in reality, and on the whole, both he and the grower of wheat, hogs, cattle, vegetables, fruit, poultry, and eggs have lost heavily. Not because of the bigness of the big industry, but because of its power to make profits out of practices that neither producer nor consumer ever fully understood or knew how to combat. Economists study industry from too great a distance—they are like a forester who has never gone close to the woods, but has examined it only from the safe distance of a neighboring mountain top, or a passing aeroplane.

The forester in reality can predict and control the health of the forest trees because he looks at the growth, foliage, and bark of the individual tree; not because he has charted the average height or average condition of the trees in the forest. Similarly, if economists see it as their job only to report what has happened to workers and consumers in a statistical sense, there is no need to go to them for help in repairing the social system after a catastrophe, or in preventing the next one.

Let us see what a large manufacturing industry or two has done to the farmer in respect to the milk, eggs, and other produce that he sells. Then we may be able to reach a just conclusion as to who should be taxed to restore the farmers' and our own purchasing power.

If Americans ate cheese freely, one of the large uses of milk in this country would be to make cheese. Someone discovered that so few people in this country, where we eat less cheese per person than almost any part of the world, knew what good, well-ripened, and matured cheese tasted like, that it would be possible to sell an imitation of cheese that would get by quite

satisfactorily. Not only is this imitation cheese diluted with water and skimmed milk, which means that it uses less of the farmer's milk to produce a given number of pounds of cheese, but it is also often old, rancid, spoiled cheese reworked (what used to be called bar-room cheese because it was more easily enjoyed by those who were not quite sober). The consumer pays for this product, with its disguised and chemicalized flavor, the regular price that he would for the good genuine cheese. The advertising talks of its healthfulness and special digestibility and delicately omits to mention its origin and mode of manufacture; home economists, without even understanding these things, tell housewives how to use the stuff in cooking, and the farmer sells in a market which takes less of his milk products, and pays him a lower price for them. The farmer sells less food value; the consumer gets less food value at the old price, water and other things being added by the manufacturer to make up the difference. The commercial gain which is made accrues to whom?-to the so-called cheese factorynow no longer a small country business but a large modern enterprise in the regular factory style, which has much machinery and very few workmen. The "gain" is made at the expense of the farmer, the factory workmen now replaced by machinery, and the consumer; and the product, often hardly fit to eat, is by a legal technicality pretty much exempt from the weak controls of the food and drugs acts, state and federal. So far has this particular form of legalized adulteration gone that foreign makers of honest cheese have given up trying to send their finer products into this country. The fine imported cheeses, Cheddar, Swiss, and Gruyère, are now process Cheddar, process Swiss, and process Gruyère, not cheese at all, but imitation cheese, often unwholesome, parading under the name of an honest article, and selling at its price. The average consumer does not know the significance of the name Process Cheese or Cheese Spread on the label (of course if he buys only a piece from a larger cheese, he doesn't even see the label). The advertising, Borden's for example, calls it cheese, the price signs in the stores call it cheese, and the dealer sells it as such. A practically unenforced food law makes all this possible, including the now universal name Process Cheese, or Blended Cheese, or Cheese Spread, which is so uninforming that the average buyer purchases without even being aware that an imitation of cheese is what he is really getting.

Not only do the pure food laws, so called, not control this shoddy stuff, but the agricultural colleges in milk producing states even show the imitation cheese manufacturer how to make his product, and so in a sense to cheat every taxpayer in the state except the factory owner. The farmer thinks the state and federal departments of agriculture are working for him. Actually they are working for business; if they start to work for him, or even in rare cases for the consumer, they end up in the normal course of events by doing a job for the business interests of the state or country.

The modern bakery, too, uses almost nothing in its processes that a housewife would consider fit for cake or bread making. Low grades of flour, made from low-priced wheat, whitened and artificially aged with chemicals to make it look like flour of kitchen quality, and to take up as much water in the finished loaf as possible so that water may be sold at bread prices; cottonseed fats instead of cream and butter; yellow coloring matter instead of eggs; insanitary frozen and dried eggs instead of wholesome eggs at a higher price fresh from the farm; corn starch and tapioca to fill up pies and pastries with a diluted bulk instead of real berries and fruit; chemicals like citric and tartaric acid instead of lemons and other fruit flavors. Again we see at work the process of substituting the cheap factory-produced product like cotton oil or starch for the farm-produced product like cream or butter or berries or lemons or peaches or cherries. Every one of such cases costs the consumer nutritive value and value for his money, and costs the farmer the sale of a fresh product in a favorable market.

Again, consider soft drinks. The bottle of soda pop you drink at the ball game might well be a fairly strong mixture of real fruit juices and sugar and charged water (there was a time when lemonade and orangeade were made of real lemons and oranges, though city-bred people may not recall it). Actually the use of fruit in such drinks is exceptional and when a trace of fruit juice is employed, it is in very small and nutritionally insignificant quantities. Most soft drinks, of which ten billion bottles a year are said to be consumed, and many soda fountain beverages, are just chemical color and acids and flavors, water and sugar; and their sanitary condition is frequently awful. Even the trifling content of extracts and flavors in bottle drinks is made to look like more than it is by the addition of a poisonous drug called saponin which produces a foam or bead. This makes the drink look to the eve as though it really had something tangible in it besides water and a spoonful of sugar.

Here again the state university agricultural school is teaching the manufacturer how little fruit syrup is needed to give a detectable fruit flavor to bottled soda, just as in a score of states the agricultural schools give courses to ice cream manufacturers telling how to beat the greatest amount of air into the ice cream, how to make the cheapest preserved and canned fruit pulps and flavors go as far as possible.

how to add artificial color and flavor, etc.

Everywhere the drive is to substitute the cheap by-product material like cotton oil (vegetable shortening, so called) or corn oil, for a basic and nutritionally rich natural product like lard or butter; white flour and corn starch for whole wheat; some of New York's best known restaurants even adulterate canned tomatoes before serving (and they are exceedingly cheap anyway) with a germ-catching starch filler to make a very little tomato substance on your plate look like a lot. Soups, too, are thickened with a starchy substance to make them look rich and meaty. Prominent scientists in leading universities vie with one another to devise new expedients of this sort.

Thus, we see that the farmer is sold out in an economic sense by the very tax-supported institution which he is taught to believe his best friend and on his side in the unending economic war between the rural worker and his commercial market.

And what the farmer loses, we, the consumers, lose in health, and pay out as cash in hospital and doctors' bills; and worse still, we spend three hundred and fifty million dollars each year on patent medicines, mainly in childish and futile attempts to put our health back where it would have been if we had eaten liberally of fresh, natural, country-grown, and home-processed food stuffs. Instead of such

wholesome foods we get the overstarchy, oversweetened, dried out, non-spoiling, filled, stretched, pasteurized, and processed foods, jellies, jams, and beverages that are but the normal result of a factory owner's businesslike endeavors to buy raw foods cheap, and to modify and devitalize and package them in such a way that they will present a handsome and expensive appearance, sell for a high price, and at least look fresh as long as possible on the grocer's shelves. Just how powerful this drive is may be seen in the wholesale bakers' trade which must make its cakes according to very special formulas, high in starch, sugar, and vegetable shortening of high melting point and dangerously low digestibility, so they will look and feel fresh long after they have ceased to be fresh. A recent issue of a baking trade journal points out that a baker's cake sold via the grocer is four days old before it reaches the customer and five and a half days old before he has eaten it. Obviously the housewife's technique of cake-making would be of no avail before the problem of baking cakes that would look fresh in such a market, and many of her healthful and wholesome ingredients would be useless for the purpose.

Where are the food and drug inspectors all the while, you say? Not on the job, I assure you, and the laws, both state and national, are so weak that there is little they will or can do. Business

lobbies determine the content of the law, and businessmen's unions, called trade associations, weaken or nullify the inspection, and will do so until the consumer and producer discover that it is not they whose economic interests are opposed to each other, but that it is the manufacturermiddleman who takes a heavy tithe from each; from the farmer by reducing consumption and depressing market prices of healthful, substantial, and economically important food substances, and from the consumer by selling him, at prices that could buy honest and wholesome products a lot of debased, devitaminized, puffed or diluted, unwholesome, imitation, synthetic or nearfoods.

Producers and consumers both must get the adulterating and corner-cutting manufacturer and large distributor off their backs if we are ever again to have a comparative prosperity for worker and farmer, and all the average consumers and their children. It is clear, I think, if the farmer is to be given a subsidy to restore his purchasing power, just what group in society that subsidy should come from-and it's not the consumer. It's the manufacturer and the great mercantile enterprises whose guiding rule of conduct has been: buy cheap and in bulk, adulterate the product, dress it up to look better than it is, pack into small packages that contain only twelve ounces but look like a pound, label attractively and deceptively, and sell at a fancy price. They sell their shoddy wares, in fact, at the same or nearly the same price, as though the goods were sound, fresh, rich, and in every way wholesome. Sometimes, as with the cotton oil-vegetable lard substitute the inferior product is sold at a much higher price than the more digestible and wholesome natural shortening.

The government is the only power on earth that can reverse this great trend, which takes its roots in producers' and consumers' ignorance of everything that goes on in industry, except the money exchanges or what we might call the accounting process, rather than the real affairs of trade and industry. The government will not move a finger to correct the unbalance and the fraud until workers and consumers understand just what it is that has happened and will happen faster and faster as the factory system spreads into every aspect of food production, and machinery more and more takes the place of men. You and I can't possibly change these things except as we first come to understand them. When enough of us do that, and the government finds out that we do, then we and the farmer both will get a new deal from an honest deck, and a chance to get our goods' worth in selling, and our money's worth in buying. Giving Americans a new deal is not just a matter of wishing us or some of us well. It is necessary first to know exactly by what mechanical and chemical and nutritional and financial devices we have had our rights and income taken from us, and who got them when we lost them. Finding these things out, and telling them so that all may understand and act upon them is a job for agriculturists, scientific research workers, chemists, biologists, bacteriologists, and engineers-and not for politicians or bankers or businessmen.

F. J. S.

#### HONEY

ONEY consists of about 80 per cent sugar (largely fructose and glucose) and 20 per cent water. It is a fair source of iron and copper, the dark honey containing a much larger proportion of both. As it is very sweet, and accordingly eaten in smaller amounts than cane and corn syrup, honey is a desirable sweet for those who can't get along without sweets but who are trying to lose weight anyway. Honey may spoil by the action of yeasts (although honey weighing 12 pounds per gallon or more will keep for years), or it may be altered by temperatures above 90°F. It should be kept cool (below 55°F).

Federal or state gradings have not been generally adopted by beekeepers. However, the honey sold as "Wisconsin Honey" must bear a stamp showing the grade given by the Wisconsin Department of Agriculture (e.g., Fancy, No. 1, No. 2). As flavor varies according to its source, it is advisable to sample the honey before purchasing in large quantities. Much off-flavored honey is marketed.

If honey crystallizes, it may be reliquefied by gentle heating (140°F). Honey may crystallize whether or not it has been heated to prevent fermentation.

"Honey cream" is naturallygranulated honey which is ground to reduce the size of the crystals.

Honey from bees kept near sprayed orchards may be contaminated with the dangerously poisonous lead and arsenic.

#### RECOMMENDED

Comb or extracted honey from producers in tins of  $2\frac{1}{2}$ , 5, 10, and 60 pounds. Smaller quantities in bottles usually command a very much larger price per pound. Write your State college or Department of Agriculture for addresses, of which three are listed below.

Hillman Guaranteed Pure Honey (Hillman, Oak Park, cago) 5-lb. pails, 55c.

Tongue River (Tongue River Apiaries, Ranchester, Wvo.) High quality, grade "white." Prices f.o.b. are: 5-lb. pail (minimum order), 50c; 10-lb. pail, 95c; 60-lb. can, \$4.80.

Wilcox Apiaries (Ray C. Wil-

cox, Odessa, N. Y.)

THE trailer industry is admittedly in its infancy, yet, if the publicity emanating from the recent automobile show is an accurate index, it promises to be a very lusty infant in 1937. Already more than fifty models of trailers are on the market.

An industry in its infancy is usually—perhaps always—characterized by an absence of high and generally prevailing standards of consumer serviceability. It is within the consumer's power to become the major influence in writing appropriate specifications for the construction of trailers.

For prospective buyers of trailers we recommend that the points enumerated below be considered carefully before making a purchase. These specifications have been drawn up by a qualified technical man who has had several years of experience with trailers.

Automobile trailers should be

equipped as follows:

1. Sufficient space in wheel wells to replace stock size wheels and/or tires with those sizes used on the towing car, should latter be larger than trailer's stock size.

2. Brakes or provision for later installation of brakes. These are compulsory in some states.

Sufficient clearance under sink drain outlet to place goodsized receptacle there to receive drainings. Many desirable camping places may be such as to prohibit free drainage of sink or shower-bath water on the ground on account of stream-pollution.

4. Auxiliary 110-volt wiring to allow hooking up at those places where such service is

available.

5. Auxiliary city-water (pressure) plumbing fixtures, to allow hooking up with pressure water where it is available. Lots more convenient than filling tank in trailer from time to time.

- 6. Substantial hooks over doorway on which a canvas may be hooked. Three-quarters of the observed in national parks had canvas flies extending from over the doorway. Practically none came equipped with such hooks or with eaves under which such flies could be brought flush against the side of the trailer. This resulted in hooks being screwed into the woodwork where they should be bolted by the manufacturer, and in canvas flies being brought over a portion of the top of the trailer to prevent rain drippage where deep eaves over doorway were non-existent.
- 7. Auxiliary safety chains on tow bars. Some states require these.
- 8. Full-length wardrobe, clothes must be packed away when not in use, or else thrown on some unused portion of the trailer, making a pigsty out of what should be a home on wheels.

Necessity of packing clothes and other "junk" away is one of the disadvantages of the collapsible

trailer.

9. Frame that will take another car's bump. Let the other fellow damage his car instead of your trailer. Money collected from him to repair damage to your trailer will do little to assuage the trouble and grief over a vacation spoiled by several days at some wayside spot waiting for your home-on-wheels to be repaired.

10. Insulated roof, also painted white outside. Several makes have insulated walls and floors, but roofs are not insulated against heat. A full day on the road in the sun, with the trailer top absorbing the heat therefrom, will give you a furnace when you come to make camp

in the evening.

11. Dustproof doors and windows. You can't always travel on a concrete or oiled road. Especially should the window in the rear of the trailer be tight. Avoid a model with the door in the rear. That means an alleyway, which is undesirable because those coming in and out must pass the galley stove, which

doesn't make for a cheerful mood on the part of the "little woman."

- 12. Bunks which do not touch the walls. In cold weather you freeze and in hot weather the man next to the wall bakes. Double bunks, if satisfactory for the family, will be found more desirable than singles. They require less bedding per person. Two lowers, if space is available for them, are better in hot weather than a lower and upper. Cooler in summer.
- 13. Edges of cabinet work trimmed. Several makes examined this year were found to have rough edges of prestwood or veneer left on the interior cabinet work, such as wardrobes, etc. Great for snagging women's stockings. Would have to be trimmed down or beveled off by the purchaser.
- 14. Chemical toilet, if the trailer is large enough to accommodate such a convenience. Many lovely stretches of beachland or other camping places au natural are denied the trailer camper who lacks a toilet, unless he desires to go to the trouble of building a latrine outside.



The \$700,000,000 for cosmetics and beauty parlors is spent about one-seventh for the pleasures of sight and smell, one-fourth for the pleasures of sex courtship, one-third to gain general approval from others, one-eighth to have inner-self-approval and about one-tenth to secure mastery or domination.

-Edward L. Thorndike

#### **ENCYCLOPEDIAS**

There is no longer in America an authoritative, comprehensive encyclopedia, of recent edition, which ranks with the ninth or even the eleventh edition of the Britannica. The new fourteenth edition of the Britannica, completed in 1929, has in the opinion of qualified critics passed from the class of encyclopedias for scholars. Nevertheless, it remains the most accurate, interesting, and comprehensive encyclopedia in America, for general use. The Encyclopedia Americana probably now outranks it as the final authority for schol-

There are ways by which the inexperienced book buyer can test the value of an encyclopedia. He should not be convinced of its up-to-dateness by being shown the articles on aviation, Admiral Byrd, and the present Cabinet. Such important and well-known topics are always newly revised as selling points. Instead, he should look up an article on his own home town, or on some other familiar and perhaps obscure subject, photography, bacteriology, or watches and clocks, which he really knows much about himself. He should ascertain that important articles are signed, and that there is authority and responsibility behind the work. Copyright dates should be noticed, and the preface should be read and checked for its own claims.

Careless printing may be rec-

ognized by blurred illustrations and broken type faces. It is essential that important information such as population figures, statistics, reports, etc., should be dated.

#### RECOMMENDED

Encyclopedia Americana (Americana Corporation, N.Y.C.) 30 vols. \$89.50 to \$150. Plate changes are made each year to keep the new printings up to date. These revisions are adequate; good judgment is shown in the selection of new information. Its general plan is the presentation of numerous short articles on specific topics.

Encyclopaedia Britannica, 14th Edition (Encyclopaedia Britannica, N.Y.C.) 24 vols. \$114.50 to \$325. This edition, completed in 1929, contains many of the features of the older editions. Contains long monographs on general subjects instead of many short articles on smaller topics.

#### One Volume Encyclopedias

While there are many uses for good desk handbooks, it should be noted that they do not contain enough material under their different heads even for school students.

#### RECOMMENDED

Lincoln Library of Essential Information (Frontier Press, Buffalo) 1 vol. \$15.50. Excellent small handbook revised each year to keep it up to date. Modern Encyclopedia (Wm. H. Wise & Co., N.Y.C.) 1 vol. \$1.95. A handy desk reference book.

World Almanac. (World-Telegram, N.Y.C.) Annual vol. 50c to \$1. With the addition of this inexpensive almanac to supply the needed supplementary, up-to-date information, a well-edited encyclopedia can serve the average family for many years.

Children's Encyclopedias

Present methods of teaching used in the schools make it almost necessary for children to have access to reference books in addition to their textbooks. Students can do much quicker reference work when using the type of encyclopedia in which the information is arranged alphabetically under very specific topics rather than large general heads. If the references are carefully worked out and sufficient in number, an index is unnecessary.

The other system is to present information alphabetically as in an encyclopedia, but under large general heads, each with its proper subheads. Teachers often prefer this method when they wish children to learn about many aspects of some assigned topic. Such an encyclopedia must have an index so that the students may find detailed information under the larger subject.

#### RECOMMENDED

Compton's Pictured Encyclopedia (F. E. Compton, Chicago) 15 vols. \$62.50. Well adapted for grade school children.

World Book Encyclopedia (W. F. Quarrie & Co., Chicago) 19 vols. \$66 to \$85. Excellent for junior and senior high school, and can be used satisfactorily for grade school work.

# Encyclopedias of History RECOMMENDED

Chronicles of America (Yale University Press, New Haven, Conn.) 50 vols. \$1.50 and \$3.50 per vol.

Pageant of America (Yale University Press) 15 vols. \$4.50 per vol. A collection of rare and unusual pictures, maps, and incidents.

History of the United States, by James Truslow Adams (Charles Scribner's Sons, N.Y.C.) 4 vols. \$39. The price includes a year's subscription to Scribner's magazine and other inducements, but March of Democracy, which is not much different, and other books by the same author sold through book stores, are a better buy.

Mythology of All Races
(Marshall Jones Co., Boston)
13 vols. \$10 per vol. A most
scholarly compilation, published under the auspices of
the Archaeological Institute of
America.

New Larned History for Ready Reference, Reading and Research (A. Nichols Publishing Co., Springfield, Mass.) 12 vols. \$105. An encyclopedia of universal history arranged al-

phabetically.

Universal History of the World (Wilston Bureau, N.Y.C.) 8 vols. \$42.50 to \$64. A new work made up of a series of articles by experts, but simple and easy for the layman to read.

Among histories sold over bookstore counters may be mentioned:

The American Nation (Harper & Bros., N.Y.C.) 28 vols. \$2.25 per vol. A history from original sources edited by Albert Bushnell Hart.

A History of American Life (Macmillan, N.Y.C.) 12 vols. (not all published) \$4 per vol. Edited by A. M. Schlesinger and Dixon Ryan Fox. Emphasizes social and intellectual history.

Further aid can be secured from A Guide to Historical Literature (The American Historical Association and the American Library Association, cooperating in its preparation; Macmillan, 1931) Edited by G. M. Dutcher and others.

#### Biographical Encyclopedias

#### RECOMMENDED

Dictionary of American Biography (Scribner's, N.Y.C.) 20 vols. \$12.50 per vol. Sponsored by the American Council of Learned Societies.

Who's Who in America (Marquis, Chicago) Annual vol. \$8.75 per vol.

American Men of Science (Science Press, N.Y.C.) 1 vol. \$12. Form, arrangement, and selection of material exemplify the best techniques available for such a work.

# Encyclopedias of Health or "Doctor Books"

#### RECOM MENDED

Modern Home Physician (Wm. H. Wise & Co., N.Y.C.) 1 vol. \$3.50. Published in 1934; very practical and simply written; particularly useful in describing home medical and nursing care and in defining medical terms in popular use. It is sensible in its analysis of symptoms and treatment.

Black's Medical Adviser (A. & C. Black, Ltd., 4 Soho Square, London) 1 vol. 8s0d. (about \$2) postpaid. Practically the same as Oxford Medical Adviser for the Home, now out of print. Gives clear definitions of names of diseases and drugs and of medical terms, but gives little on treatment.

# Compilations of Knowledge and Literature

#### RECOMMENDED

American Literature, a Period Anthology (Macmillan, N.Y.C.) 5 vols. \$6.50. This excellent anthology can be purchased in a bookstore for 1/10 of the price of a similar anthology sold by subscription. The Oxford University Press has also printed good anthologies at prices ranging from \$5 to \$10.

#### Religious Encyclopedias

Of the compilations of Jewish history and philosophy, the Jewish Encyclopedia remains the most outstanding and important. Likewise, the Catholic Encyclopedia has not been surpassed although Universal Knowledge, published by the Universal Knowledge Foundation, N.Y.C., is a good, popular, and up-todate general encyclopedia presenting the Catholic point of view. Hasting's Encyclopedia of Religion and Ethics is the outstanding general work in this field.

# Dictionaries RECOMMENDED

Webster's New International Dictionary of the English Language (G. and C. Merriam Co., Springfield, Mass.) \$20 to \$47.50, according to binding. The reader, confused by the conflicting claims of 45 different English dictionaries, had best narrow his choice to the various editions, differing in size and comprehensiveness, of the two rahking American dictionary publishers: Funk & Wagnalls Co., N.Y.C., and G. & C. Merriam Co.

#### Compilations of Literature for Children

We question the value of publishing extracts from children's books. Experience does not warrant the conclusion that such ex-

tracts lead the child to the reading of the complete book from which the extract was taken. On the contrary, a child who had read an adaptation will think he has read a complete classic.

A few of these sets are worthy of recognition for use in some rural and isolated homes where there is no access to book stores and libraries, and no guidance to book selection.

#### RECOMMENDED

Children's Hour (Houghton, Mifflin Co., Boston) 10 vols. \$39 to \$45.

My Bookhouse (Bookhouse for Children, Chicago) 6 vols. \$36 to \$48.50.

My Travelship (Bookhouse for Children) 3 vols. \$19 to \$20.

#### Beware of the Book Agent

Valuable advice on dealing with book agents and subscription book salesmen and on numerous shrewdly calculated tricks of their trade is given in Consumers' Research's Bulletins, Mar., Oct., and Nov., '35. These expose many of the devices that result in the consumer's losing much money and contracting to buy expensive compends that will, more often than not, be of practically no use to him.

Useful reference:

Subscription Books Bulletin, American Library Assn., 520 N. Michigan Ave., Chicago. Quarterly; \$1 per yr. Available in many libraries.

#### Vitamin D Ballyhoo

Francisco Department of Public Health have joined in a warning against too much sunshine, particularly in the concentrated form, because of the possibility of delayed harmful effects. The University's warning reads:

"Naturally this is not an argument for interfering with the treatment or prevention of rickets by vitamin D. But it is a plea to use some discretion in the amounts of vitamin D prescribed. Commercial enterprise is endeavoring to capitalize to the fullest in the current popular vogue for vitamin D. In addition to a suntan craze there are ballyhooed everywhere irradiated foodstuffs of all varieties, metabolized milks and even 'sunshine soaps.' But when on top of an unknown but probably quite adequate intake of vitamin D, especially in Sunny California, children are dosed with large amounts of vitamin D preparations by over-anxious mothers, it is time for physicians to use care in prescribing the drug."

The warning of the San Francisco health department states:

"The director of public health wishes to record the fact that he disapproves of the present tendency of manufacturers to add measured quantities of vitamins to foods for commercial purposes. There is still considerable question, particularly in the instance of vitamin D, of what constitutes the proper dosage of vitamin concentrates in the various age groups. Any attempt to increase the sale of a food product, especially milk, by the addition of a substance whose value to the public health is still a controversial problem is indeed ill-advised. Even if it is granted that the actual danger in the consumption of vitamin D milk is relatively minimal, there is as yet no definite and accepted information on the limits of margins of clinical safety."

#### DO WE WANT COLLECTIVISM?

Versus what is vaguely described as the American system was raised but not settled by the election of 1936. There are many varieties of collectivism, ranging all the way from the mildest form of consumer co-operation to the Communism of the Third International. The proponents of these various cures-for-what-ails-America are still with us and will, we may be sure, continue to press for adoption of their programs.

All forms of collectivism thrive upon the obvious weaknesses of individualism. All employ the logic, thin as a worn dime, that these weaknesses can be avoided or eliminated through a radical overhauling of the whole social structure as we now know it in this country. The details of such overhaulings never appear. We are asked to trust the proponents of the overturn to take care of that properly after liquidation of present institutions has been completed.

Cooperative, communist, socialist, fascist, and other collectivist claims have been analyzed and criticized from almost every point of view except that of determining the status of the people as consumers under the operations of collectivism. The consumer's criterion for judging all social or economic systems is their readiness and competence to supply, at reasonable cost, appropriate kinds and qualities of

goods and services which constitute a desirable standard of liv-

ing.

During the past two years, Consumers' Research has made some investigations of consumers' goods produced or sold by cooperative organizations in England and Sweden and products made under the Communist regime in Russia. Some of the most worthless patent medicines, sold by appeals to superstition and ignorance that have been in disfavor or illegal in this country for twenty years, are sold by the followers of collectivism. The Russian State Trust, for example, sells a magic potion for increasing male virility. Comparative tests of English and Swedish cooperative razor blades showed them to be distinctly inferior to well-known American makes. Eight brands of Russian soap failed to meet U.S. Federal Specifications for good toilet soap, which many American toilet soaps meet easily. The low quality and marked scarcity of consumers' goods in fascist Germany and Italy are a matter of common knowledge.

In this brief space it is impossible to set down all the evidence available, but it appears from examination of the various known and tried forms of collectivism that those so far tried have signally failed to function effectively or satisfactorily for consumers. This is the essential criterion of State

performance that any new regime must stand or fall by for Americans, who have been long accustomed beyond all nations of the world to an abundance of varied and highly developed consumers' goods. In this connection, abundance is used in a purely relative sense and it is not intended to imply that goods available to Americans are fully adequate either in quantity or quality.

Collectivist systems so far tried or proposed have been distinguished for their insensitiveness to and their intolerance of free, independent criticism, yet from the consumer's point of view, his safeguards are all destroyed when free criticism of goods and services is stifled. Vast quantities of inferior products have been produced under the system of free, private, and competitive enterprise; yet a vital

difference remains between such enterprise and all its collectivist rivals in the modern world. Private enterprise has the capacity to produce appropriate quality, in abundance, if subjected to a constant fire of consumer analysis and criticism. Collectivist enterprise, rejecting the criticism and penalizing the consumer critic, sets up an insuperable bar to quality and improvement of goods. Whether a population shall live in the midst of shoddy or be served by competent technicians with goods of high quality will be determined by whether there shall be an enforced silencing of criticism or whether consumers shall be permitted free comment and complaint. It is the right of free criticism of products and producers which has been in fact the distinguishing characteristic of free enterprise.

## Consumergrams

Inflation brings sky-high prices and bottom-scraping quality.

Now for a Magic Stomach and we can listen to all the radio

programs.

Perhaps an apple a day kept the doctor away before the widespread use of lead-arsenate sprays; now it's an invitation to both doctor and undertaker.

When a manufacturer says that his current product represents the "last word" in style, engineering, or usefulness, remember that he will discover his error within twelve months at the outside-when his next year's product is ready for the market. A wise consumer can beat him to the discovery.

#### GULLIBLE'S TRAVELS

December 28, 1936

Snocum, Coconut Grove, Pacificania.

Dear Snocum:

Last night to the automobile show with Impervious who had to be dragged along. Unappreciative soul! The crowd was enormous; the display of cars breath-taking, stupendous.

The automobile industry is the "pacemaker of prosperity" here. The pacemaker, as you know, is the ox-cart that leads the race; but prosperity you would never understand. When I come back to Coconut Grove I intend to introduce prosperity: First, you concoct chemical aids-to-nature to increase the coconut yield. The next year you chop down half the coconut trees to insure against their bearing. Then you go back to the chemicals and so on. It's lots of fun, and the system gives the wisest men their opportunity in high government positions. Wise men rearranging nature is as good a definition for prosperity as I can think of. But at this, Impervious just shrugs his shoulders and says woosoppy. He was always out-of-joint, and I find him ill-adapted to the Scientific civilization here.

Well, prosperity was the first thing I noticed about the automobile show. Hardly, however, was my admission ticket in the box when my eye fell upon the most breath-taking thing that American toilet soaps, skin-food creams and Hollywood diets have yet produced: a hovering blonde. If you ask me, she — the indispensable accoutrement of tooth paste merchandising and air

QULLIBLE'S TRAYELS



ravel as well as automobile shows - is the true acemaker of prosperity. That's how I feel about t. But that cold-blooded fellow. Impervious. gnored the blonde creature, and pushed me along with him as he skipped about from car to car asking lot of annoying questions about such things as comparative trade-in values, net delivered price, and the possibility of putting gas in the tank ithout having it belch all over the ground. martly uniformed young men who were there to give ectures were considerably embarrassed and I was leeply chagrined, especially as the beautiful londe overheard one of his impertinent queries and knew that he was with me. Eventually, I lost impervious in the shuffle of the crowd, and then I returned to the car upon which that goddess of harm had riveted my attention. From the moment first laid eyes upon her I knew that I was to wn one of the cars over which she hovered. How such heavenly creature hovers over an automobile until t is enwrapped with her presence. I can never tell rou. Even an American advertising agency has no ocabulary for such loveliness. Some cynics say hat blondes are hired for this work, but no one tho knows how blondes give their lives and oveliness for automobile and radio shows would ay such a thing. Impervious says it is all a lot f woosoppy, but I repeat that he is a misfit in my civilization where beauty is the glorious andmaiden of salesmanship.

Well, to get on with the car of my choice. It is a 1937 Whizz, and what a bargain! Priced at the amazing all-time low figure of \$119.98. Oday I went to the Whizz dealer and became the roud owner of one of its 1937 models. There were few little extra charges for this and that, but must say that I was duly informed at the auto

show that \$119.98 was only the "base price" of the car. Impervious says in his mocking way that the base price is only the price for the bottommost thing about an automobile which, according to him, is the shadow which it makes on days when the sun shines.

You will understand how all the little things go to make my 1937 Whizz a comfy vehicle if I give you a list of the accessories and services and the modest charge for each:

the modest charge 101	eac.	n:	
Bumpers	\$10	Windshield wiper, B. Doors	\$5 40
Spare tire lock Headlights	2	Brakes	30
Fenders	48	Running boards Knee action	20
Tires and tubes Wheels	60 48	Shock absorbers Safety glass	30
BatteryCarburetor	12	Cigarette lighter	5
Automatic choke Gas tank	10	Heater	15 15
Radiator	15 25	Radio	50
Grille Steering wheel	5 7	Engine	100
Windshield wiper, A.	10	Freight and handling	75
arpor, A.	0	Gasoline and oil	4

If the coconut crop is good this year - and you will let me know, please - I may have a clock placed on the dash board.

If only the hovering blonde were a Whizz accessory! The thought that she is not, dear Snocum, causes me grief.

Yours for a big coconut crop; we'll need it.



#### The Consumers' Digest

W HO is a consumer? You are one, I am one, but until recently no one has paid very much attention to us as consumers. Probably the first man to discover consumers—somewhat unwittingly, it is true—was Adam Smith, an economist who lived from 1723 to 1790. In his book, The Wealth of Nations, this grandfather of all economists said, "Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to only so far as it may be necessary for promoting that of the consumer." Nobody paid much attention to this, however, and the word, "consumption," was most commonly thought of as a disease rather than the act of using or consuming things.

It was in 1927 that the consumer began to be widely noticed as the result of a best seller called Your Money's Worth, "a study in the waste of the consumer's dollar," written by Stuart Chase and F. J. Schlink. The requests from readers of this book for more specific and detailed information as to just what refrigerator or vacuum cleaner to buy were so numerous that in self-defense, Mr. Schlink organized the Consumers' Club to supply such information. This proved to be so successful that eventually it was incorporated as Consumers' Research in December, 1929, which has since grown by leaps and bounds. Mr. Schlink had formerly been the technical assistant to the Director of the United States Bureau of Standards.

Consumers' Research is a non-profit membership corporation which provides unbiased, scientific information on goods and services which you buy. Through its *Bulletins* issued monthly (except during July and August) it provides subscribers with the answers to such questions as, "What is a good and inexpensive brand of toilet soap?" or "Which two brands of *Gillette*-type razor blades were found by test to be superior to eleven other brands?" Information on cameras, bicycles, canned goods, electric refrigerators, cigars, cosmetics, and many other products are reported on. These commodities are listed by brand name as *Recommended*, *Intermediate*, or *Not Recommended*. Information

on which listings are based comes from authoritative and impartial opinions of governmental and private experts, carefully selected for their competence and integrity, and from the testing and research work of Consumers' Research's staff and its scientific and technical consultants. Listings are not based on information from manufacturers, salesmen, or advertising agencies.

Consumers' Research is supported entirely by consumers and devoted to their interests. Samples for test are almost invariably bought on the open market just as any consumer would buy them. No money or compensation of any kind is accepted from manufacturers, salesmen, or advertising agents for listing their products in the *Bulletins*, nor are the results of tests discussed with manufacturers before they are issued to subscribers.

Since the information on goods listed by brand name is of a kind that is not freely published, it is necessary that each subscriber sign an agreement, before his subscription is entered, to keep the information confidential (unless it is otherwise marked) for his own use and that of his immediate family. No subscriptions to the combined service are accepted from corporations, libraries, or other groups.

Many have found this confidential restriction irksome and have urged a more easily available form of securing the information which appears in Consumers' Research Bulletins. There is much general, useful information in these Bulletins on which there is no need for the confidential restriction. Consumers' Research, therefore, takes pleasure in responding to the many requests for a more popular form of issuing its information and presents the Consumers' Digest which will appear monthly. The Consumers' Digest will carry only the Recommended listings of products on which Consumers' Research reports.

Those who wish more detailed and explicit information are referred to Consumers' Research Bulletins. (Subscription to Consumers' Research Combined Service is \$3 a year.) A circular describing this service in more detail will be sent without charge to all requesting it.

Consumers' Research, Inc. Washington, New Jersey

# Introducing THE CONSUMERS' DIGEST Read Pages 79 and 80



# CONSUMERS' DIGEST

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FEBRUARY, 1937 Vol. I · · No. 2



#### CONSUMERS' DIGEST

Published monthly at 80 Lafayette St., New York, N. Y.

by

CONSUMERS' RESEARCH, INC.

Editorial Office: Washington, N. J.

25c a copy ★ \$3 a year >

The American News Company, distributors

F. J. SCHLINK Editor-in-Chief J. B. MATTHEWS Managing Editor M. C. PHILLIPS Associate Editor

Technical Editors: R. JOYCE and E. W. CHENEY

Address all communications to Consumers' Digest, Washington, N. J.

Entered as second-class matter at the Post Office at New York, N. Y., under Act of March 3, 1879.

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¶ The material in this magazine is mainly based upon data in the files and from the Bulletins of Consumers' Research, Inc.

¶ This magazine, Consumers' Digest, should not be confused with Consumers' Research Bulletins. The annual subscription price of Consumers' Digest is \$3. This rate does not include a subscription to Consumers' Research Bulletins for which the annual subscription fee is also \$3.

¶ Consumers' Digest presents only Recommended products in its listings. The omission of brands from the Recommended list does not necessarily imply a non-recommendation.

¶ Those who desire a more complete discussion of technical details of methods of test, together with the Intermediate and Not-Recommended listings of products as well as those Recommended, should subscribe to Consumers' Research Bulletins (issued monthly except during July and August). The annual subscription price of the Bulletins is \$3 which includes the September Bulletin—an annual cumulative handbook of buying of more than 200 pages.

¶ Consumers' Research is an independent, non-profit corporation without political, organizational, or business connections of any kind whatsoever.

[Consumers' Research is supported entirely by consumers and devoted to their interests. Samples of goods tested are, with few exceptions, bought on the open market just as any consumer would buy them. No money or compensation of any kind is accepted from manufacturers, salesmen, or advertising agents for listing their products in the Bulletins or in the Digest, nor are the results of tests submitted to or discussed with manufacturers before they are issued. Teachers and groups interested in using Consumers' Digest in class or discussion projects should write for special rates on lots of ten or more copies.



### CONSUMERS' DIGEST



The enlightened consumer is a necessary encouragement to merchandising integrity.

#### WAYS AND MEANS OF GETTING FRESH COFFEE

UR information on coffee has included little advice as to the best ways of obtaining coffee in fresh condition, or on the effectiveness of means available to the average consumer for keeping it that way. Unbiased information is scarce, as, until Consumers' Research undertook its special investigations in this field, all the known experts on the subject had connections with packers or advertisers of coffee or manufacturers of tin cans, and for the most part they have been enthusiastic to a quite unscientific extent about the advantages of a process which lends itself especially well to the packaging of coffee in airtight, sealed cansat a nice addition to the retail price.

Many people do not have a correct idea of how coffee de-

teriorates. Immediately after roasting, the aromatic flavor, which is extracted in brewing and which is the characteristic of coffee for which the consumer in the main buys it, starts to decrease in strength. After about two weeks of keeping ground coffee in a bag, can, or jar (even if sealed), it is necessary to use twice as much coffee to obtain a given flavor-strength of the brew as was required immediately after roasting. This not only costs more, but, as the amount of caffeine in the coffee does not decrease with age, twice as much caffeine gets into the brew. Thus coffee which has declined in freshness is not only less desirable from the flavor point of view, but it becomes, as it grows older, increasingly undesirable from the standpoint of healthfulness, with the effect of

intensifying nervousness and sleeplessness in those who are susceptible to coffee. Besides, such coffee, on account of the greater proportion of extractives which get into the brew, has a more bitter flavor, and, after the eleventh or twelfth day after roasting, a rancid taste, due to staleness, becomes noticeable. This stale flavor increases rapidly thereafter and soon makes the beverage unpalatable.

Thus freshness in coffee means more than mere absence of staleness, and contrariwise, staleness is more than just lack of freshness; staleness is lack of freshness plus an added unpleasant flavor. Loss of freshness begins long before the stale flavor comes into the picture, and the loss of freshness means chiefly a loss of strength, and hence of economy in use. As the coffee loses freshness, there is an additional loss of quality of flavor because of the extra bitterness occasioned by the necessity of steeping a larger and larger quantity of coffee to get a brew of the same flavor-strength.

Coffee packers have taken advantage of the general lack of realization of these facts to misrepresent the effectiveness of vacuum packing. "Thus it is possible to obtain *fresh* coffee from the grocer at any time." [Italics ours—CR] This, of course, is a significant misstatement. Coffee packers and advertisers, when they talk of fresh coffee, always mean coffee that is *not stale*, and in which the stale flavor already

explained has not yet developed. They carefully ignore any suggestion of the fact that the freshness or strength, and hence the economy of use, of coffee declines markedly before staleness appears. The loss to the consumer resulting from lack of freshness is their financial gain—providing, as it does, a well-concealed way of making the cost of coffee (per cup and per unit of flavor-strength) much higher than it needs to be.

A great deal of coffee has lost the larger part of its strength by the time it is used; much of it, indeed, had already lost it or even become stale and worthless, or nearly so, before it was purchased by the consumer. When it is considered that in a survey by the coffee trade itself 66 out of 93 samples purchased all over the country in 1933 were found to be stale, it is clear that many people do not know when they are drinking stale coffee. Entirely aside from considerations of flavor, the amount of money spent unnecessarily because of coffee deterioration (and wasteful brewing as well) must run into a staggering figure per anand into very sizable amounts for each individual family. Only part of this loss is due directly to loss of freshness; probably an equal amount is thrown away on gaudy and impossible advertising claims, on elaborate tin cans, fancy bags and boxes, and cellophane coverings-all of which have no more effect in preserving the coffee than an ordinary unsealed paper bag. These containers, of course, are used only for saleseffect, to make the buyer think—or rather feel—that the coffee ought to be better if packed that way.

Even if sincere, most of these attempts at warding off deterioration of roasted coffee are totally misguided. The simple fact about coffee containers that are supposed to be sealed (other than vacuum pack) is that if they were sealed, and if the coffee were in fact fresh when packed, they would eventually burst, or at least be bulged quite out of shape. If they are sealed and do not bulge or burst, it is because the coffee had lost most of its strength before it was sealed in. The blowing up of the can would be the inevitable result of the evolution of gas by the coffeesix to twelve pounds pressure in the can. It is this evolution of gas that is the main reason for vacuum packing. If the container is not sealed, it has no value whatever over an ordinary paper bag, or, indeed, over keeping the coffee in an open pan, since the protective gas soon escapes, carrying with it the valuable aroma. The consumer pays for the fancy container just the same and, as usual with fancy containers, gets nothing for the extra money except some refuse to be hauled away at the next visit of the scavenger.

From tests of coffee recently carried out for Consumers' Research, it appears that loss of strength is most rapid in the first two or three days after roasting. After that time, nothing can be done for ground coffee to slow up further deterioration which proceeds at very nearly the same rate whether the coffee is kept in a sealed jar or in an open pan. This applies to vacuum-packed coffee after opening also, and hence there is nothing one can do with the higher-priced vacuum-packed coffee to assure its retaining flavor after it has once been opened and put to use.

Ground coffee kept in open pans was found to lose strength three times as fast as bean coffee in sealed jars, in the first few days after roasting. Except in a vacuum-pack container, coffee ground immediately after roasting that has waited around for a week before the consumer gets it, will have lost 25 per cent of its strength. By the time it is used up a week later (and many families will take longer than that to use up the coffee in a single container), only 45 per cent of the strength remains. By this time also a rank, stale taste will have begun to appear. Thus the average yield is only 60 per cent and the user is paying almost 50 per cent more for his coffee per cup than if he started using it the same day it was roasted (in which case the average yield, during the week in which the coffee bought fresh from the roaster was being consumed, would be better than 85 per cent).

There is little to be gained by

the consumer's using preserving means (such as a sealed jar) for a supply of coffee, whether in the bean or ground, that is to be used up commencing immediately after purchase, even if it is obtained freshly roasted. (This is because the opening of the jar each time coffee is used largely nullifies the saving which is obtainable if the jar remains sealed for several days after filling with freshly roasted coffee.) The best that can be done is to see that the coffee is ground when purchased, and not before. For anyone who is in a position to do so, it is best to buy and have ground no more coffee than enough to last three or four days. This procedure will give an average yield of almost 90 per cent of the ideal if the coffee is not more than a day old when ground. If only four days old, however, and a week's supply is bought, the average yield falls to less than 70 per cent—over a 30 per cent increase in cost per cup. These differences in the actual cost show that the condition of coffee can influence the cost of the beverage to the consumer far more than differences in price per pound of the roasted bean. The important point in regard to getting maximum yield from each purchase of coffee, and hence best economy in use, is that the coffee must be purchased, and as much of it as possible used up, before much of the rapid deterioration of the first few days has taken place. During this time the coffee is at its best.

The larger part of the loss of strength of roasted coffee occurs while it is being kept in the pan-\*try awaiting use, the loss being larger the longer the time, of course. Preserving means are worth while mainly in cases where the coffee must be stored a week or more before use, when it is obtained immediately after roasting. To get anywhere near all of the available saving, the coffee must be purchased before the rapid deterioration of the first few days after roasting has taken place, because it is during this time that any means of preserving the flavor and strength will be most effectual. Unfortunately, the only way of getting any appreciable saving in the use of roasted coffee involves grinding the beans at home just before use. Bean coffee placed in a wellfilled sealed jar immediately after roasting will have over 85 per cent of its strength when opened a week later, as contrasted with less than 75 per cent for ready-ground coffee also tained immediately after roasting, but kept in a paper bag.

When coffee must be kept for more than ten days after roasting, there is no choice (excepting vacuum pack), if the rancid taste of staleness is to be avoided, but to keep the coffee in the bean, unground. In this way, staling is delayed nearly two weeks longer than in ground coffee, and a 10 to 15 per cent better yield is obtained. This increased time before the appearance of staleness is the most pronounced differ-

ence between bean and ground coffee; the quicker staling of ground coffee is due to the exposure to air of the inner particles of the bean. Ground coffee should not be kept more than ten days, even when obtained freshly roasted. Staleness appears when 60 per cent of the coffee strength remains, whence the loss due to throwing out ground coffee because of the appearance of the unpleasant stale flavor is considerable.

Those who wish to obtain the utmost in economy and flavor quality, at the same time avoiding the effects of caffeine to the maximum extent, can easily roast their own coffee. Tests by Consumers' Research have shown that roasting can be done satisfactorily in an electric corn-popper with a stirring handle, such as can be bought from Sears, Roebuck for 98 cents, or, with a little more trouble, in an ordinary oven. Roasting in the corn-popper (which has not yet been tested for shock-hazard, durability, etc.) required ten minutes, with constant stirring. This method gave a more uniform roast than the oven, which required nine minutes with frequent stirring, the oven being pre-heated to 500 degrees as indicated by the thermostatic gas regulator. Care is necessary not to over- or underroast; a little practice will enable one to judge the right degree by the color. The trouble of obtaining green coffee and roasting it is offset to some extent by the lower cost of the green coffee.

which may be bought in quantities sufficient to last several months, as it will keep in a dry place for a year or so. Indeed, some grades of green coffee increase in value in the wholesale market with length of storage. Two or more families can join in purchasing green coffee, and in sharing a suitable roaster. For best economy and finest possible flavor for the grade of coffee which is used, roast no more than three or four days' supply at a time, and keep the roasted beans in a sealed jar. Green coffee of several varieties and blends of varieties may be purchased by mail or express in any good-sized city; e.g., from the Old Dutch Mills, Inc., 80 Front Street, New York City, and Herbert Heroy, 123 Front Street, New York City, and 23 East Hanover Street, Trenton, N.J. (Coffee grinders may usually be secured from house furnishing stores that sell old-fashioned or traditional kitchen appliances and equipment. The French or German makes of the type held in the lap of the user are still sold in this country and are more satisfactory than American ones, and give a fine grind which is necessary for economy. Such grinders may be secured from Hammacher, Schlemmer & Co., 145 East 57th Street, or Charles R. Ruegger, Inc., 666 Sixth Avenue, both in New York City. Prices range from \$2.65 to \$3.45.)

In addition to the economy achieved by this method, weight

must also be given to the superior flavor and to the less harmful effect of the beverage, on account of its lower caffeine content, as already explained. People who really appreciate good coffee and can discriminate good from poor coffee, will not be satisfied with anything less than the most effective means of getting the maximum of goodness from the beans.

Unfortunately, the importance of the differences in yield as determined by the condition of the coffee, which has been discussed in this article, is completely overshadowed in many cases by the fact that the housewife utilizes only a fraction of the available yield because of improper brewing. As the result of incomplete extraction (and consequent waste) of the flavor, the gradual weakening of ground coffee probably goes unnoticed, because any weakening of the brew is partially compensated for by an increase in the extraction, as by longer brewing (percolating or boiling) time. Then, too, the average housewife's coffee is far from being a uniform product. Strength and flavor may, and with most people do, vary widely, the latter especially as to its bitterness or mellowness. Some of this variation is beyond the housewife's control; changes in blends, and possibly improper roasting are a common occurrence and make for waste of the consumer's money. Diligence in securing fresh coffee and close attention to proper brewing will

minimize both the loss of economy and the variation from uniformity. Any method of brewing which requires that the coffee be coarsely ground necessarily gives less efficient extraction than any method with which finely ground coffee can be used. Coffee ground to a fine powder will give as much as 10 per cent greater yield than the "universal" grinds of vacuum-packed and other readyground coffee. Ready-ground coffee is nearly always much coarser than it should be; it is, of course, to the advantage of coffee roasters and packers to employ a fairly coarse grind. While the coarser grinds waste coffee and increase the housewife's costs in this way, she can, for the most part, be depended upon not to be aware of this fact, and hence will accept what the packers tell her is the proper fineness of grinding.

Reporting the death rate from diabetes in the United States at twenty-five deaths per 100,000 population, which is higher than anywhere else in the world, Frederick L. Hoffman says:

\*

"It is shown by tabulation that high diabetes death rates coincide with excessive sugar consumption. The correlation is far from perfect but it is nevertheless significant that the United States should show a sugar consumption considerably above the average for the world at large."

#### AUTOMOBILE CARE AND MAINTENANCE

THE NEED for information on this subject has been amply illustrated by the complaints Consumers' Research has received from subscribers on the shortcomings of their automobiles, which, in a large proportion of cases, can be directly traced to incorrect maintenance, such as operating at high speeds with an oil of low viscosity, etc. Consumers' Research, therefore, presents the following brief hints, which, although not new to many readers, we believe will be of marked value to automobile owners in increasing car life and de-

creasing car troubles.

1. The car should be greased every 1,000 miles according to the directions in the instruction manual accompanying the car. Do not rely upon the service station to do a complete job. The majority will omit greasing points which are not easily accessible, unless specifically instructed. For example, many stations will not grease front wheel bearings unless attention is directed to them. The oil level should be checked each time gasoline is purchased, and at least every 200 miles when driving at high speeds, and at once if the temperature indicator on the dash shows a sudden unexplained rise, or the oil pressure gauge a drop, even if only a moderate one.

2. Except for driving in desert country, or where air temperature is 100°F or over, or when driving several hundred miles at

steady speeds of 60 miles or over per hour in hot weather, oil heavier than S.A.E. 30 should not be used in the majority of cars. Hard driving with oil as thin as 10W is likely to ruin any engine. The viscosity of the oil at running temperature of the car is the most important character-

istic of any oil.

3. The engine should never be run faster than moderate idling speed until the water temperature reaches the operating range, and never over 2,000 revolutions per minute, or about 40 miles per hour, the first five minutes of running. Never drive faster than 70 to 75 per cent of the maximum speed of the car. Use moderate rates of acceleration.

4. On long, hard trips stop once every 200 miles in the shade and allow the engine and oil to cool 15 to 20 minutes. Stop a while after any long, hard climb. Never shut off the engine immediately after completing a hard climb or fast run-allow it to run at moderately fast speed for a few minutes to allow cylinders

to cool more evenly.

5. The engine should be given a complete checkup and adjustment at least every 10,000 miles, and the chassis given a general tightening every 5,000 miles. It is important that not only the body bolts but complete steering mechanism be included in the general tightening. The cooling system should be flushed and cleaned twice a year, before and

after the use of antifreeze solution. Spark plugs should be cleaned and the gaps correctly adjusted every 1,000 miles. Consumers' Research advises against having your plugs cleaned by certain reconditioning machines, which through vigorous sales campaigns have been installed in many service stations. These machines, we believe, sacrifice future performance to present mechanical efficiency; their tendency to remove the glaze from the porcelain will cause fouling to occur much more rapidly than in plugs carefully cleaned by hand. Air cleaners should be cleaned every 2,000 miles by washing with gasoline, and then dipped in engine oil. Shock absorbers should be checked by a trustworthy serviceman at least once a year or every 5,000 to 10,000 miles (perhaps less if car is used much on rough roads) and fluid added as necessary. Brakes should be adjusted at frequent intervals, as the safety of the car depends upon their being kept in the best possible condition. Grease or oil working its way into the brakes is one of the most common causes of brake failure. In such cases the brake

drums and linings should be cleaned with non-leaded gasoline and the leak stopped by replacing the felt washers in the axle. The foot brakes should be capable of stopping the car on a dry, hard road free from loose material within a distance of 35 feet from a speed of 20 miles per hour; at the time of servicing brakes, however, they should give better performance than this and should be adjusted to stop in a distance of 20 feet from 20 miles per hour.

6. To attain most efficient operation, the spark should be advanced or retarded (on cars where this important adjustment can still be made by the driver) to suit the octane rating of the gasoline being used.

7. When the car skids, do not touch the clutch or jam on the brakes. Stop feeding gas, and, providing the road is clear to permit the maneuver, turn the wheel in such a manner as will tend to move the car in the direction toward which it is skidding. If necessary to apply the brakes, do so as gently as the emergency allows, and release them at once if the skid becomes more marked.

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#### Leaded Gasoline a Hazard

A special commission appointed to investigate the possible dangers of ethyl gasoline reported in 1926 that evidence of poisoning from gasoline to which tetra ethyl lead had been added is slight. On the other hand, general knowledge of the action of inspired dust particles containing lead compounds would seem to indicate that the spraying of lead compounds by the exhaust of automobiles constitutes a distinct menace.

—Theodore Koppanyi in Underhill's Toxicology

#### SAFE AND ECONOMICAL WASHING MACHINES

LOCK OF HAIR caught in the wringer of an A Delectric washing machine yesterday caused the death of Mrs. Mary Elizabeth Paterson, 37, wife of a Mare Island clerk, and the mother of five children. She apparently died of shock when she tried to free herself from the moving wringer, pulling the heavy machine down upon her. An autopsy made by Dr. Fred Heegler disproved an earlier belief that death may have been caused by electrocution. The electric motor was still going when the body was found." (Oakland Tribune, March 10, 1936.)

The above newspaper report of a fatality caused by a powerwringer type of washing machine is the fifth fatality of this kind to be brought to Consumers' Research's attention, in addition to numerous reports of injuries such as crushed hands and arms, broken fingers, etc. There is no justification for anyone to underestimate the hazards of this type of washing machine, nor the care which needs to be taken by consumers who are already the possessors and users of power wringers. While it is true that the majority of manufacturers have equipped their power wringers with so-called "safety devices" for use in cases of emergency, those which Consumers' Research has examined are not an assured safeguard against injury.

Until the power-wringer type of washing machines are equipped with really effective and foolproof safety devices, machines of this type will be omitted from Consumers' Research tests. (It should be said that the problem of devising such devices so that they will be invariably effective and reliable, is perhaps an impossible one.) Unfortunately, washing machines that do not require a wringer for drying the clothes are priced much higher than those which use a wringer. It appeared, for example, in a study of the market some months ago, that the cheapest spinnertype machine available retailed at \$99.50; yet full-sized machines of the wringer type can be had as low as \$32.95.

Consumers' Research's tests of full-size washing machines were, having in mind the problem of safety, confined to spinner-type machines and to a new type of machine which possesses a device operated by water pressure from the mains for drying the clothes. The principle of this last-mentioned machine is explained more fully later in this article. Briefly, the tests comprised the following determinations: electrical insulation; power input measurements; critical engineering examination; comparative effectiveness in washing; effectiveness of the dryers; wear on the clothes washed; and an endurance test to get some idea of the degree to which the machine would continue its operation without mechanical breakdown. The machines, with one exception, were found to comply with electrical safety requirements given in Fundamental Safety Requirements for Electrical Equipment to Be Used by the Public, as issued by the Association of Edison Illuminating Societies (1932).

The manufacturers' instructions accompanying the machines gave various stated periods as required for washing in the several machines, varying from three to twenty minutes (partly dependent upon the condition of the clothes). The test, however, disclosed that by increasing the washing time from ten to thirty minutes the ability of the machine to get the clothes clean, as measured by their whiteness, was increased by approximately 27 per cent for the large machines and by 23 per cent for the small machines. In view of these figures, it is hard to understand why manufacturers should advise, as some do, shorter time for washing than required to do an effective job. It may be that understatements of this type are considered good sales tactics, used in the belief that sales would be adversely affected if the customer were advised to increase the washing time to twenty or thirty minutes, with consequent increased demands upon the attention of the housewife and correspondingly increased wear on the clothes. The short washing period prescribed by the manufacturers is probably a major reason why the better laundries return clothes looking much cleaner than those washed in the home washing machine. (It probably does not, however, account sufficiently for the shorter life of laundry-washed clothes.) For the average housewife, fifteen to twenty minutes' use of a good machine will probably be a sufficient period of operation to obtain satisfactory washing results. With some of the home washing machines, one disadvantage of the longer periods of washing is that the clothes tend to twist into a wad or hank. When this occurs, little washing action is received by the clothes which are on the inside of the wad.

The mechanical operation of the National Watermatic differs from the conventional type in that the agitator runs continually in one direction instead of back and forth. This action, together with that of the baffle, causes considerable agitation of the water in the tub, whirling it up around the outside of the tub and down at the center of the tub, somewhat in whirlpool fashion. The dryer of this machine consists of a deep pot or container, lined inside with a heavy rubber sack fastened at the top by means of a substantial clamp ring. A heavy cast aluminum lid with bayonet catches closes the dryer after the wet clothes have been put in place, and is locked by slightly rotating the lid. Water from the mains is then turned into the container under the sack, pushing the sack and its load of wet clothes up against the lid. The pressure of the water applied, often 50 pounds per square inch or more, squeezes the water out of the clothes, water running out from under the edge of the lid onto the drain board, where it can be directed back into the machine or into laundry tubs, as desired. This type of dryer is mechanically well designed, quiet and effective, and requires little or no care in placing wet clothes in the dryer. But it does require, for satisfactory operation, a water pressure of at least 30 pounds per square inch, and it is to be noted that one should satisfy oneself in advance that such pressure is in fact available in one's household at all times of day when the washing machine may be required, since there are often large variations in water pressure from city pump reservoir systems, depending upon the amount of water which is being drawn from the mains. No tests were made to determine maximum safe working pressure, but consultant's opinion is that the machine will be safe for pressures up to 100 pounds per square inch. If at any time, e.g., during a fire or otherwise, water pressure in your district exceeds, or may exceed, 75 pounds per square inch, have machine or your piping equipped with special pressure-limiting valve.

The *National* required tightening of the driving belt twice during the test, otherwise it had

no mechanical difficulty in com pleting this test. One interesting finding from this test was that the small washing machines were somewhat costlier to operate than the larger machines, considering the amount of washing handled, and were, furthermore, much less effective in washing ability. They did, however, give appreciably less wear on clothes; it is to be noted that diminishing wear often, though not always, corresponds to decreased washing ability. Thus it is evident that the use of the small machines should be confined to the washing of delicate, slightly soiled garments, or other extra washing insufficient in quantity to warrant the use of the regular-size machines. The National Watermatic machine used an amount of water approximately 50 per cent greater than required on the average for the other two large machines tested; a part of the additional water is accounted for by that required in the method of drying used, already described above. Differences in water consumption are, of course, to be taken into consideration by consumers living in regions where water is scarce or expensive. Where water is plentiful cheap or charged for only at a flat rate, the water consumption will be a matter of minor significance.

The total cost of operation given in the first two of the following listings is for a wash of twenty pounds, estimated to be the average family weekly wash,

and includes the cost of electricity for operating the motor for a maximum washing period of thirty minutes per load at five cents per kilowatt hour, and the cost of heating the water to 140°F by gas of 540 British thermal units at \$1.15 per thousand cubic feet (assuming one tub of water for two loads of clothes). On the other machines or on any machine, the high school or college teacher of physics or engineering in your community, or one of his students, can readily calculate these costs for you at different prices of electricity and gas and for gas of other British thermal units value than the 540 named (which is typical for manufactured gas). When coal is used, the cost of the hot water will fall to one-half or less of the cost with gas. It will be noted that the major cost for operation is for the hot water supply. The cost of electricity is given in two instances so that the reader may more easily estimate that part of his own operating cost which is due to the cost of fuel consumed in providing the hot water.

Nine washing machines were tested. We recommend the four which are listed below in the order of increasing price.

#### RECOMMENDED

National Watermatic, Model 100 (National Metal Products Co., Waterloo, Iowa) \$99.50. One of two ranking about equal for second place in washing effectiveness. The second easiest

on clothes of the 5 large machines tested. Capacity, 5.7 lb of dry clothes, 16.5 gal of water. In addition, the dryer used 3 gal of cold water from the mains to damp-dry one load of clothes. The dryer was found to be one of the most effective and the most convenient of all those tested; as it operated quietly and without vibration, many will prefer it to the spinner type. The machine ranked high in quality of construction and ease of operation. It is equipped with automatic timing device (somewhat inaccurate) which can be set for any length of washing period up to 15 min. Drainage of water from the machine is effectuated by means of an aspirator if it is required to deliver water to sink, otherwise drainage is through a hose onto the floor; the drain hole, however, is located under the agitator (which is not removable) and becomes filled with lint which was difficult to extricate unless machine was kept running during drainage operation. For a 20-lb wash, cost of electricity 2.2c, total cost 10.3c.

Hotpoint AW11 (General Electric Co., Bridgeport, Conn.) \$119.50. Spinner dryer. One of the two most effective in washing ability but decidedly the hardest on clothes. Dryer one of the most effective. Slow-acting drain pump. Except for finish, practically identical with General Electric washer 3G (\$129.50).

Easy Spin Dry Spiralator, Model 2 DS (Easy Washing Machine Corp., Syracuse, N.Y.) \$159.50. One of the two most effective in washing ability. Not so easy on clothes as National Watermatic. Capacity, 7.2 lb of dry clothes, 17.5 gal of water. Spinner-type dryer. The machine was superior in quality of construction and good in ease of operation, but required that care be used to

distribute the load evenly in the spinner in order to prevent excessive vibration. A safety device with which the machine is equipped prevents use of the spinner until the lid is closed and locked. For a 20-lb wash, cost of electricity 3.2c, total cost 12c.

Easy 2U (Easy Washing Machine Corp.) \$159.50. Vacuum-cup type. Spinner dryer.

#### FOUNTAIN PENS OF GOOD QUALITY

ITERALLY millions of fountain pens have been sold whose quality is so bad that they hardly function effectively for a week after they have gotten into the purchaser's hands. The general design of fountain pens is so familiar and the differences which determine good performance so subtle that it has been easy for drug stores, variety chain stores, novelty shops, and mail-order concerns to make many millions of dollars by selling to school children and other inexperienced consumers a product of which it might be accurately said that it only looked like a functioning fountain pen. For the past several years Consumers' Research has consistently purchased samples of many makes and grades of fountain pens, particularly the various types—both for pocket and desk use-which it has found available at low prices. Until the last few months, these have been uniformly bad, developing some fundamental defect, sometimes within a day or two of their purchase. Frequently that defect is simply that the pen will not write and cannot be made to write. The cause has usually been chemical interaction between the ink and the pen point, sometimes between the ink and the material of the barrel,

Very recently a number of interesting developments have occurred in the design and production of low-cost fountain pens, and really cheap pens are beginning to be available that show performance as good as, and occasionally better than, some of the widely-advertised kinds that sell at prices from \$3 up.

One of the most promising low-cost fountain pens, which is worth the average consumer's trying but which cannot yet be unqualifiedly recommended, is a pen recently offered in Kresge's stores and bearing the ambitious

name La Ritzie. This uses an entirely new mode of reducing cost -a solid-gold-alloy point, of low gold content to be sure (being only ten carat), cheapened by being made very thin (as are most low-priced pens), but then given suitable writing stiffness, very necessary to assure durability in service, by a well-designed backing-plate of stainless steel alloy. This make, while far from being the worst in this respect, has, like many other cheap pens, only a small ink capacity. The iridium-tipped nibs of a number of La Ritzie pens that have been tried have been exceptionally good and show surprising uniformity-a feature in respect to which most cheap pens have been very unsatisfactory. Indeed, the nibs of these 39-cent La Ritzie pens, for anyone who likes a fairly stiff point, will be found, on the average, better and smoother than most brands of high-priced pens.

There are two respects, however, in which this new cheap pen should be considered with caution. First, it appears that the ring upon which the pen section seats in the cap, when the cap is screwed down, may not permanently provide a tight seal. Second, a few of the pen points in a number examined have shown an undesirable sidewise looseness of fit in the holders, which the inexpert user would have serious difficulty in remedying. However, it seems safe to say, considering the way in which ten-cent-store products are now gradually improved in design and functioning over a period of months or years, that this pen, which is well finished exteriorly and comparable in appearance with much higher-priced products, will bear watching by consumers who wish the most fountain pen service for the least money.

The so-called iridium tips on fountain pens are not actually iridium. Pure iridium is much softer and less suitable for the purpose than a natural or synthetic osmium-iridium alloy (which also contains some other metals of the platinum group). There is, therefore, so far as the consumer is concerned, no effective misrepresentation in the labeling of pens as carrying iridium tips on their nibs when an equally or more desirable substance is in fact used. It is quite likely that there is a wide variation in the resistance to wear of the different types of "iridium" points available on different makes of pens, but it is doubtful whether research on this question would reveal information of sufficient practical importance to the consumer to warrant the expenditure.

The development of the lowpriced pen has followed two lines. First, various attempts to use a non-precious metal for the pen proper to get around the high cost of gold pens. This development in turn has had two variations. In one of these, va rious sorts and grades of stain less-steel-alloy are used for the pen point, usually with a crude smooth-pointing of the pen in the manner of the old-fashioned ball point steel pens. These would have proven very satisfactory except that in practice manufacturers have taken little care to obtain properly shaped, smoothwriting nibs on the pen. The second development is more recent, and consists of putting on stainless-alloy pens genuine "iridium" tips, such as are used on fountain pens employing a gold pen. Such tips are capable of being smoothly rounded and given a fine polish so as to provide precisely formed and durable writing points.

Unfortunately, at the present stage of the art of manufacturing cheap fountain pens, many mistakes are made and a good and durable point is often combined with an extremely bad feed, cap, or filling mechanism, so that the consumer who does not have a considerable degree of ingenuity in analyzing the defects which his fountain pen may develop, may become quite unnecessarily discouraged in his efforts to find a cheap, and at the same time lasting, fountain pen. In addition to the defects of design, there have been used in fountain pen manufacture an amazing variety of expedients that can only be called fraudulent. These are too numerous to list here, but a few may be indicated. With the developing vogue for pens of very large ink capacity, which is discussed else-

where in this article, a number

of makers of low-grade fountain pens have brought out cheap, pump-filling pens of large capacity, practically all of which rely for their sales upon that one new feature which had caught the public mind for the moment, and were in all other respects practically unfit for any use whatever. A cruder trick was the stamping of a gold-plated brass pen point with the symbol "14 K," the manufacturer's explanation being that 14 K was a catalog or type number. Sometimes the word iridium has been falsely associated with the fountain pen when no iridium point was in fact used. The ring or seat in the cap which provides for sealing the pen, when the cap is screwed down, against leakage from the point, is often missing or added in such a way as to be ineffective, merely giving an appearance of such a seat being present. The use of names which resemble well-known ones is a trick with fountain pens as it has been in the past with watches.

The use of celluloid and other unsuitable compositions in the manufacture of pen barrels has brought it about that many of the cheap pens react chemically with the ink in such a way as to plug the feed with precipitated solids constituting the pigmenting material of the ink. This fault in a fountain pen having a celluloid type barrel is impossible to correct when it occurs with good ink of the gallotannate type (the common type of ink which writes blue-black and turns to a

darker color with exposure, recommended by Consumers' Research in various Handbooks.) Such pens may work with a fair degree of satisfaction with some types of dye-inks, of purple, green, brown, etc. (which have been made increasingly popular by attractive advertising but are really very unsatisfactory on a number of counts). Nevertheless, there is no excuse for the production of any pen which does not work perfectly with the good gallotannate-type ink, without causing any deterioration, "wateriness," or precipitation of the ink whatever.

The Guaranty Problem. The subject of fountain pen guaranties has become a problem in itself. Misrepresentation customary in advertising and in dealers' shops impresses the prospective customer with the value of guaranties, which the pen buyer assumes, on account of what the advertising doesn't tell him, will assure him free repair and replacement of parts of the pen throughout its life; these misleading guaranties are interesting enough to warrant treatment in a separate article. For the purpose of the present discussion, let it suffice to say that the consumer will do well to ignore the assurances of the guaranties, however sweepingly expressed, and buy his pen on other information exclusively, having in mind that, as with automobiles and automobile tires and most other articles accompanied by some sort of warranty, a way will be found by

the dealer or the manufacturer. when a difficulty develops, to avoid responsibility for fulfillment of the guaranty in the sense in which it is understood by the purchaser. The fountain pen and tire manufacturers' guaranty is, as one critic has well put it. good so long as one does not use it. When it comes to a showdown, the actual cost of repairing the "guaranteed" pen carrying the warranty of free service for an indefinite period will be just about the same as though no such guaranty were given. Only a lawyer's experience with the possible tricks in the framing of agreements suffices to suggest the number of ways in which clauses which seem perfectly logical and honestly meant to the consumer. turn out to have had a very special, narrow, and legalistic meaning to the man who wrote the guaranty.

One word of advice: practically all fountain pen advertising picks on some small featuresuch as the color, pattern, or transparency of the barrel, its large ink capacity, the size and he-mannishness of the point, or some patented feature affording a special and unimportant adjustment-and magnifies it to astronomical values. The wise consumer will remember that what one really asks of a fountain pen is very little; that not one nor a few, but many brands and types of fountain pens substantially comply with those requirements. Consumers' Research will continue to watch

fountain pens closely, especially in the lower price ranges, where the best values are now to be found, and its readers may be assured that when important and dependable new features really are available, Consumers' Research will tell of them in its Bulletins.

For ordinary use the average "standard make" fountain pen should last a lifetime, so far as the mechanics of the pen are concerned. Most discarded pens can be made nearly as good as new at trifling cost. If expert and conscientious repairmen are not near, send directly to the maker. Almost any reputable make should give five or six years of uninterrupted service, the first failure being the rubber sac which may cost 25 cents.

Important Precautions. only one brand and color of ink in a given pen. We cannot overemphasize the fact that a great deal of fountain pen trouble grows directly or indirectly out of using more than one brand, type, or color of ink in a pen. Much fountain pen "repairing" (in the case of obstinate refusal to feed ink freely) consists of nothing more than really thorough and complete cleaning out of old ink residues. Ordinary washing is not sufficient to avoid this difficulty. It usually takes successive washings for several days with dilute household ammonia and cold water to get a pen back to the point where a new ink flows with the ease with which a previous ink did before a change. Keep some ink of the brand you are using everywhere you work. When a pen is not to be used for a while, fill with cold water and put cap on tight.

Nibs. Because the flexible nib works better than do other nibs when a pen has had a mixture of inks in it, flexible nibs are likely to be favored. But far greater smoothness and writing quality will be obtained with an inflexible or "manifold" pen, which offers the advantage that one or two satisfactory carbon copies can be made with the penwritten original. The stiff-nib manifold pen will give an unusual amount of difficulty with clogging and failure to feed promptly for any user who will not follow to the last detail the above precautions in the use of inks. The manifold points are far more durable and immune to mistreatment, except ink-mixing and ink-contamination. "Semiflexible" nibs are an attempt to combine the desirable features of both types. Some persons, it may be noted, require flexible or semi-flexible points for their style of handwriting and for comfort in writing. To some degree, flexibility of point may lighten the work of continuous writing, because a flexible point requires less delicacy and uniformity of muscular control.

For writing which should be permanent, a heavy flow of ink is necessary. In a few special cases a user requiring rapid drying may prefer a more sparing flow. In this case particularly, he should take special pains to use none but the most permanent

grade of ink.

Selection. Don't be content to take the first pen handed to you. Make your selection in a careful and leisurely fashion. Require the dealer to let you try at your own pace, a large assortment of pens in the models and price class which interest you. As to barrels, avoid holders of red, brown, or mottled rubber. Black rubber is better, but the "unbreakable" material, now almost universally used, is best. Some very cheap pens, including many sold by department stores as bargains, and numerous "brands" which do not give the name of the maker, are made of a composition similar to celluloid which reacts with the gallotannate type of ink (i.e., with good fountain pen inks) in a way to cause precipitation and quick clogging of the pen. A band on the cap to prevent its splitting is desirable. The nib should be tested on several kinds of paper; a really smooth nib should write without catching, even on newspaper. Be sure that (unless you are one who has a special need, as already indicated herein, for a pen with sparing ink flow) the pen you choose gives a free, rather than a scant, flow of ink, and that if it does not give a free flow, you arrange for its feed to be properly adjusted before the pen is purchased. (Only a pen dealer regularly doing fountain pen repair work on the premises is likely to be in a position to—or to know how to—make this somewhat difficult adjustment.)

Some bargain pens hold but seven drops of ink; twenty would be too few. The capacities of fountain pens vary from less than 3/4 of a cc in the smaller sizes to more than five times as much in the larger pens. The consumer is warned not to be fooled by the size of the pen, for this is no sure indication of the amount of ink that a pen will hold. Some small pens have been found to hold as much as, and sometimes more than, the medium-sized pens. New designs have recently become available in which very large ink capacity has been obtained, with the elimination of the rubber sac, in medium-sized and small pens. Tests of such pens and of other new pens under investigation by Consumers' Research are not complete and the listings are accordingly, in part, of an interim nature and tentative. It is to be noted that the recent trend to increase fountain pen ink capacity is not an unmitigated advantage. With rare exceptions, such pens produce a much too free flow of ink (increasing to actual dripping) during the feeding of the last fourth or less of ink contents. ¶ Special emphasis is given in the listings to the pens which appear to provide exceptional value for the money.

Consumers are advised (no matter what representation to the contrary is made by dealers or advertisers) not to purchase

pens of unknown brands or brands which do not show a maker's name and address, ex-

cept as noted.

Ink. The government grade ink, either "writing fluid" or "record" strength, will work perfectly in a fountain pen over a period of years, provided that all care is taken to prevent the slightest admixture of other ink or foreign substances. A highgrade ink of this type will fail completely in any fountain pen if this precaution is not most carefully followed, and will fail in certain pens, principally of the transparent type, as noted above, of which the barrel's material reacts with the ink.

Of twenty-one fountain pens tested, we find deserving of recommendation the six listed below.

## RECOMMENDED

Esterbrook (Esterbrook Steel Pen Mfg. Co., Camden, N.J.) \$1. Corrosion resisting, stainless-steel-type alloy pen. Feed and nib may be unscrewed as a unit and easily replaced (25c.) when worn, Recent samples of this pen have shown very satisfactory resistance to corrosion by the ink. An especially good buy at its price.

Sheaffer (W. A. Sheaffer Pen Co., Fort Madison, Iowa) Smooth points probably more easily found in this make than in any other. Service charges for repairs, new cap, etc., may perhaps seem excessive in consideration of this maker's "Lifetime Guarantee."

Sheaffer Junior (W. A. Sheaffer Pen Čo.) \$2.25. "Iridium" tipped gold pen. Pump-filled, visible ink supply. Large ink

capacity.

Vacuum-Fil (Made by Sheaffer) \$2.95. "Iridium" tipped gold pen. An exceptionally wellmade and rugged small pen. A good buy at the price in the gold-pen class. Pump-filled, visible ink supply. Did not carry the maker's name.

Waterman's Ideal (L. E. Waterman Co., 191 Broadway, N.Y.C.) Probably the best of the flexible-nib pens, somewhat less sensitive to clogging due to ink-mixing. Although rubber barrel undesirable, No. 52 at \$2.75 (with manifold nib, \$3.25) still an excellent buy. Try large assortment to find smooth-nib pen. Model No. 94, at \$5, with manifold nib and unbreakable holder, also good value. Special types of pen points, such as for music writing, are supplied by Waterman Company; Waterman's selection and repair service believed to be best of all makes.

Waterman Ink-Vue, Model No. 84 (L. E. Waterman Co.) \$5. "Iridium" tipped gold pen. New type, pump-filled, visible ink supply. Least subject to flooding difficulty of any of the pump-filled, large-capacity pens, but somewhat less convenient to fill than others in the

group.

# SELECTING A GOOD INK

A LMOST without exception, the only black inks suitable for record purposes are iron-tannin inks of the general type called for by government specifications, follows: tannic acid, 11.7 grams; gallic acid, 3.8 grams; ferrous sulphate, 15.0 grams; hydrochloric acid dilute, U.S.P., 12.5 grams; carbolic acid (phenol), 1.0 gram; soluble blue, Schultz No. 539 (col. Ind. No. 707), 3.5 grams; water to make a volume of 1.000 cc at 20° C. The soluble blue may be procured from Fezandi & Sperrle (205 Fulton St., N.Y.C.), at around 60 cents for 30 grams, and added to a mixture containing the other ingredients, which can be measured out by a druggist. (Where permanence is the chief factor, the proportion of the first four ingredients should be doubled, making a record ink -Bureau of Standards Circular No. 95): In making, dissolve tannic and gallic acids together in 400 cc warm water (distilled or rain water to be preferred). Dissolve ferrous sulphate in 200 cc warm water to which the hydrochloric acid has been added. In another 200 cc warm water, dissolve the dye and the phenol. Mix the three solutions, allow to cool to room temperature, and make up to one liter by adding the small portions of water used to rinse the containers in which the separate solutions were prepared. Allow the mixture to

stand, corked, several days before using. Do not shake. If the ink is to be kept for a long period, the bottle should be full, to exclude air, and hermetically sealed.

Unless in the case of a large buyer who can afford to have chemical tests made, and so to force conformity with specifications, it will, experience indicates, be practically impossible to purchase from commercial sources the grade of ink which the government buys for its own use, and a manufacturer's assurance to deliver this grade of ink on an order, unless he is aware that a chemical test is to be made, should not be given weight. Anyone can make the government grade of ink satisfactorily and cheaply for himself and anyone anxious to employ the best and most lasting ink available for records and other important work should do so.

Avoid all red, green, and violet inks for permanent records, and blue inks except those that really turn to an intense black. Many inks which write black immediately, and most ink powders and tablets, do not make permanent inks. Avoid inks which, when dry, can be washed out with water, or a soap and water solution, or which fade when soaked overnight in soap and water solution (tests very easily made by the layman). So-called "safety" or "acid-proof" inks (bright blue or greenish-blue in

color) are of this kind. They are permanent to light and acids, but the writing is quickly removed by alkali or by a solution of soap in water. So-called "indelible" ink is among the least indelible of inks. Except for children, there will rarely be reason for employing an impermanent ink.

We have frequent requests for a jet-black ink which is permanent and has the other desirable properties of the government ink formula quoted above. There is no such ink. An alkaline writing ink made from a compound known as ammonium ammonium-hydroxyferrigallate, recently reported by the Bureau of Standards, was briefly tested by Consumers' Research. It is rated much inferior, as a permanent record- and document-ink, to the government standard iron-tannin ink given above. Though somewhat expensive, it is probably easily the best of the strictly black-writing record inks; it does not work well in a fountain pen which is open much of the time; it can be obliterated by alkali or by soap and water; except when made up fresh, it is not fully waterproof.

Maximum resistance to erasure or chemical alteration is given by: the use of the high-strength "blue-black" (record) ink; a free flow of ink (i.e., one which requires nearly two minutes on hard, non-absorbent-surfaced paper or perhaps ½ minute or less on mimeograph paper or other absorbent-surfaced paper in order to dry without blotting [a

first-rate fountain pen repairman can make the simple adjustment required to produce a free flow of ink from the nibs of any good fountain pen]); and a sharp, somewhat scratchy pen, or an ordinary pen used with heavy pressure—both of which latter expedients cause irreparable physical modification of the surface fibers of the paper. If the correct banking form in check writing is followed, combined with the above directions in the use of ink and pen (the use of safety [tell-tale] paper being implied, of course), it is doubtful if there is any need for the use of a check protector.

Regarding indelibility of ink records, a fresh record is far more easily altered than an old one, but an old record can be successfully eradicated if the writing was lightly inked, or blotted

before drying.

From time to time our listings are headed "Qualified Recommendation." This category of recommendation is sometimes used in preference to the more frequent "Recommended" because, in our belief, there are instances where commodities fall short of the highest practicable technical standards or where even better results may be obtained, if consumers wish to take the trouble, by using home formulas.

QUALIFIED RECOMMENDATION

Davids' Electrochemical Blue-Black Writing Fluid (Thaddeus Davids Ink Co., 95 Van Dam St., N.Y.C.) Quink Permanent Blue-Black (Parker Pen Co., Janesville, Wis.)

Sanford's Premium Blue-Black (W. Sanford Mfg. Co., W. Congress and Peoria Sts., Chicago) Blackest color of the trade inks of good type tested. Carter's Ryto Blue-Black (Carter's Ink Co., 239 First St., Cambridge, Mass.)

Waterman's Ideal Blue-Black
(L. E. Waterman Co., 191
B'way, N.Y.C.)

"Le Page's" Signet Blue-Black (Russia Cement Co., Glouces-

ter, Mass.)

Stafford's Commercial Blue-Black (S. S. Stafford, Inc., 609 Washington St., N.Y.C.)

# BEWARE OF "SIX PER CENT" FINANCING

been a custom for installment sellers to make much in their advertisements of a so-called six per cent financing scheme on purchases. Simple arithmetic would have shown such advertisements to be untruthful, but many consumers have not yet learned to use simple arithmetic in such matters. The consumer who has credit at the bank will find it profitable to obtain a loan at a bona fide six per cent rate and pay cash for his purchases.

Now the Federal Trade Commission has taken some of these installment sellers to task, and they have agreed to cease and desist from this type of untruthful advertising. The Federal Trade Commission issued the following statement:

"In their agreement with the Commission, these companies stipulate that in their advertising matter or in that furnished to authorized dealers, they will stop using representations, pur-

suant to a financing plan, the effect or tendency of which is to cause purchasers to believe that the plan contemplates the payment of a simple interest rate on deferred and unpaid balances of the purchase price, as, for instance, six per cent, when in fact the interest rate involved and actually required is other than a simple interest rate of the amount referred to in such advertising. . . .

"The actual financing plan is not truthfully or accurately presented in this advertisement, according to the stipulation, which points out that the plan does not contemplate a simple six per cent interest charge, but requires payment of a six per cent charge on the full amount of the account originally financed from the date it begins to run to the date the account is closed.

"Such plan involves payment of interest at a rate much higher or substantially 100 per cent greater than the six per cent featured in the advertisements, according to the stipulation."

# FIRE SAFETY IN THE HOME

of some 10,000 lives, several times that number of injuries, and property damage of several hundred million dollars. Statistics indicate that the fire waste is a serious national problem. But how does it affect the individual householder, and what can he do about it?

Burning is a horrible death, and any serious burn is painful and likely to cause disfigurement. The seriousness of extensive burns depends on the area of the skin affected as well as the depth of the burn and is often not appreciated, owing to their delayed effects. Any large area burn, even though it may not seem very serious, should have immediate and skillful medical attention. We all fear fire, but, because of lack of personal experience, this fear is not sufficiently acute to serve as a very satisfactory sales appeal for fire protection. The average individual could live for six hundred years before being burned to death or having any member of his immediate family suffer serious personal injury from fire. Averages, however, do not afford any comfort when your own child is burned. Everyone will agree, in theory, that every possible precaution should be taken to prevent fire, but as a practical matter it is only a very small minority of householders who are willing to spend any money or take much trouble to

this end. The fire record would be infinitely worse were it not for fire department activities and the various fire prevention requirements imposed by building codes, electrical ordinances, and other legislation.

Because of the effect of fire insurance in distributing losses and relieving the individual of the consequences of his carelessness, property damage from fire seems to be of very little personal concern. In cities with good fire department protection, the average home will stand 1,000 years before being destroyed by fire. In rural districts, fire losses are greater, but the chances of serious fire in any one building in any one year are still mathematically very small. The indemnity paid by a fire insurance company, however, never can completely compensate for the disruption of the home caused by fire, and the householder has every reason to take precautions.

The various precautions against home fires may be roughly classified into: (1) those having to do with the construction and permanent equipment of the building; (2) care in the operation and maintenance of the home; and (3) the installation of extinguishers and other fire protection equipment. The construction of the building and installation of fixed equipment are outside the scope of this article, which, on account of space limi-

tations, will concern itself only with the fire problems of the operation and maintenance of the home and with home fire protection equipment.

One reason that fire prevention precautions are not popular is because they are, for the most part, necessarily expressed in the negative. Prevention of fires requires not doing various things which may cause fires. The following paragraphs cover the causes responsible for the greatest loss of life. For the most part the prevention of such fires involves no money expense.

Children left alone in house are very likely to get into trouble with fire in one way or another. It should be a first rule of fire safety never to leave small children alone in the house and above all never to leave them locked in. Sometimes children handle fire emergencies competently, but it is too great a chance to take. In a typical case in Brooklyn, New York, on November 28, 1935, two children were burned to death and two others were seriously injured in a fire which occurred while their mother was out marketing. The children had discovered a fire under the stairs, extinguished it, as they mistakenly thought, and resumed their play. The fire then rekindled and the blaze cut off their escape before they realized their danger.

Children are naturally attracted by fire, and many deaths are caused by children playing with matches, or around bon-

fires. The standard recommendation for the prevention of such fires is to keep matches away from children. This is practical advice as regards very young children, but is questionable psychology as children grow older, when prohibition is likely to defeat its own purposes. A limited, supervised use of matches for lighting fireplace fires and other legitimate purposes helps to eliminate the glamour and makes less attractive the surreptitious lighting of matches in closets or attics that might otherwise occur. If children are caught in the act of playing with matches, an unexpected bucket of cold water is more effective in impressing the dangers of uncontrolled flame upon a child's memory than any amount of scolding or verbal explanation.

Kerosene used to kindle fires was responsible for twenty-nine deaths in the State of Wisconsin during 1935. It is not generally realized that kerosene when heated to above its flashpoint of slightly over 100° F is similar to gasoline in its burning properties. Many fires are also caused by the use of gasoline for kindling kitchen stoves or the use of gasoline or other inflammable liquids as an ingredient in the home manufacture of various compounds that are heated over stoves. All such liquids, when necessary to be used at all. should be used out of doors, for a number of good reasons, and treated with the greatest respect at all times.

Home dry-cleaning operations using gasoline or other flammable liquids are estimated to cause about two hundred deaths a year in the United States. The fumes from the gasoline when mixed with air are explosive and may be ignited in any one of a hundred ways. The larger the quantity of gasoline used the greater the hazard. The use of gasoline in domestic washing machines has wiped out a number of families. Even doing the cleaning out of doors is not altogether safe.

The ignition of clothing by contact from furnaces, stoves, and heaters is a common cause of fire fatalities. There is no preventive method for this, except ordinary care. It should also be remembered that woolen clothing is not easily ignited, whereas light cotton garments may be readily ignited by small sparks.

Smoking in bed is the cause of many deaths by fire. Likewise, lighted cigarets discarded in wastebaskets may smoulder and cause a bad fire to start after the family has gone to bed. This type of fire is insidious because actual ignition occurs only under certain rather narrowly limited conditions, and the smoker is prone to assume that it will not ever occur. It may be possible to throw down a thousand lighted cigarets before starting a single fire.

The most dangerous fires from the standpoint of life hazard are those which start in basements or on lower floors, while the family is asleep. A frequent cause of such fires is from heating devices which have been improperly installed or carelessly operated. Generally, both improper installation and careless operation are factors in fires, since a furnace, for example, which has been installed properly and in workmanlike fashion is not likely to cause a fire no matter how badly it is "overheated."

Many fires start during the night from electric irons which have been left connected during the evenings and gradually get hotter and hotter, thus starting a fire after all the family is in bed. Irons which are equipped with automatic temperature control elements are less dangerous, but any iron may start a fire if left long enough in contact with combustible material since, in order to do satisfactory work, it is necessary for an iron to run at a temperature high enough that it will, under some conditions, start a fire. Various other electrical appliances which are not disconnected may be responsible for night fires. A fan may, through vibration, fall off its support, have its blades blocked jammed so that the motor no longer turns, and then quickly overheat. Cords on portable appliances, if of inferior quality and not renewed from time to time as they become worn, may also cause short circuits and fires. It is a good rule to keep electric cords as short as possible, and, wherever the existing wiring installation does not furnish a sufficient number of conveniently located outlets, to have additional outlets installed rather than to run loose wires around the baseboard or under rugs. Fuses (or, occasionally, circuit breakers) which are found in every electric circuit are the best available safeguard and should always be carefully maintained as the safety valve in the electric circuit. Using fuses with an ampere rating higher than the standard for individual circuits (usually 15 amperes) or deliberately short-circuiting a burnedout fuse (whether for lack of a replacement fuse or because the function of the fuse is not clearly understood) is simply to invite fire.

Spontaneous combustion is another insidious fire cause that may be responsible for night fires. Linseed oil, various paints, and some floor oils and polishes have the property of heating spontaneously when distributed on rags or mops or on overalls or other clothing. This heating is usually a matter of hours or even days before dangerous temperatures are reached. To avoid this danger, oily or painty rags should be promptly burned or placed in closed metal cans. Spontaneous heating commonly occurs only where the oily rags are bunched together; there is little danger of heating if an oily cloth is carefully spread out as on a line. Cases have been known where linseed oil and paint spilled on a pair of overalls, which afterwards were hung in

a closet, have caused spontaneous combustion and fire.

Whatever the initial cause of fire, the rapidity of its spread and degree of danger depend largely upon the amount and character of fuel present. Ordinary good housekeeping helps greatly in reducing the amount of combustible material from the viewpoint of fire prevention. Good housekeeping consists not merely in order and neatness, but in the removal of all unnecessary combustible material, such, for example, as broken furniture and old mattresses that are saved with the thought that they may some day be repaired. Such accumulations of quickly combustible material, which may be ignited by a flying spark from a match, a discarded cigaret, or hot ashes blown from a pipe, are dangerous anywhere, but especially so in the city because of greater likelihood of access by furnace tenders, janitors, meter readers, and others whose movements may be unknown or unsupervised. In the country, where people are more careful of fire, the risk of ignition is less, but if it occurs the results are much more serious. The extreme example of saving unnecessary combustible material lies in putting discarded Christmas trees in the basement rather than disposing of them at once. A recent fire prevention campaign in Providence, R. I., disclosed the fact that over five hundred old Christmas trees had been kept until September.

When a fire occurs, life saving should be the first consideration and fire fighting secondary. Everyone should get out of the building and the fire department should at once be called. Unless the fire is obviously very small and readily extinguished, it is unwise for anyone except trained fireman to enter a burning building. Many lives are lost in home fires when persons already safely out of the building re-enter it to salvage valuables and are trapped by the rapid spread of the flames or of gases from burning material. Persons who have not had experience with fires commonly fail to recognize the rapidity with which fire can spread in the ordinary building, and the extreme hazard of inhaling the smoke and gases which may suddenly fill a given space in the burning building and make escape impossible.

Effective action in case of fire depends to a very large extent upon previous planning for the fire emergency. School fires seldom cause loss of life nowadays because the school population has regular training in periodic fire drills. Occasionally prudent citizens have fire drills in the home, but few householders do so. A home fire drill conscientiously conducted and frequently repeated is one of the best fire safety measures. If every member of the family knows what to do when fire occurs, fatalities are unlikely.

The night fire which gains rapid headway before discovery

presents a difficult problem. There should be a safe emergency exit of some kind in every room for use in case the main stairway is rendered impassable by fire or smoke. Some houses are fortunately so arranged that a second stairway, or porch roofs, or balconies provide a way of escape from sleeping rooms. Ropes or various types of portable fire escapes are sometimes provided. These are useful if they are used occasionally in drills, but if they are installed and then forgotten they may be worse than useless. In a recent fatal hotel fire where it was reported that every room was equipped with a rope fire escape, there was no indication that any of the occupants even tried to use the ropes.

Most people know that the way to extinguish fire in clothing is to wrap the victim in a rug or blanket, and that in a smoke-filled building the air is better near the floor. But fire reports indicate that few people understand the influence of draft on the spread of fire or know that even an ordinary wooden door, kept closed, will hold back fire for some minutes.

Fire protection equipment, like all mechanical appliances, must be regularly inspected and maintained in order to be sure that it will be in proper operating condition. Fire department and insurance inspections assure maintenance of fire equipment to a large extent in industrial, mercantile, and public buildings, but in the home no such service is provided except on the individual initiative of the householder. It is human nature to neglect equipment which is not regularly used, and, unless the householder has sufficient interest and determination to have a systematic program for the maintenance of fire appliances and the instruction of members of his family in their use, he is not likely to secure the actual fire safety which the salesman assured him he was obtaining by his purchase.

Inexpensive automatic alarms are now available which sound an alarm upon any dangerous rise of temperature. If properly installed and maintained, these should give timely warning of fire starting in the basement while the family is asleep. However, it may be questionable as to whether sound sleepers in second floor bedrooms will hear an alarm in the basement with doors closed. Any alarm system, to be effective, should be so arranged as to make itself heard in the sleeping rooms of the house.

Automatic alarms used in homes are spring- or electric-operated. It is only by means of an electric extension that a gong on the second floor can be set off by a fire detecting element in the basement. The electric current source may be from batteries which are unreliable unless regularly maintained, or from the electric lighting service which may be interrupted by a temporary failure of the city system

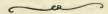
or by defective wiring in the house which starts a fire and cuts off the current before the fire alarm operates. These difficulties can all be overcome and automatic fire alarm service of nearly 100 per cent reliability provided, but only at an expense of careful planning and an amount of time or money, or both, for installation and maintenance service which most householders would consider prohibitive.

Fire extinguishers are principally valuable in saving property, though occasionally they have a life-saving function. The same is true of water buckets and garden hose connections. In some instances, lives have been lost through ill-advised attempts to fight fire by persons untrained in the use of extinguishers, under conditions where the prudent course of action would be to get everyone out of the house immediately and wait for the fire department. Extinguishers of a type suitable for the probable home fire, regularly maintained and used intelligently by persons who know how to operate them. are excellent first-aid protection, but unless these conditions are met they are a questionable investment.

Automatic sprinklers, which have a record of 96 per cent efficiency in industrial and mercantile properties during a period of forty years, have recently been adapted for home use in the so-called "junior" sprinkler systems which are connected to the

domestic water supply. These systems, installed to protect basements and kitchens or other places where fire is most likely to start, should provide both life and property protection. They have the automatic fire alarm feature in addition to applying water automatically at the point of origin of the fire. There has been little experience with these junior systems to date, but they are promoted by established

sprinkler companies and should afford reliable protection with comparatively little maintenance. They are well worth considering for any householder who feels that he can afford the expenditure required or whose home conditions are such, due to illness of some member of the family or absence of the householder at times, that especial care and safeguards are warranted.



Tin Cans (Just in case you thought there was no connection)

and Colleges I do not know whether you are aware of the extent to which our canned foods work with Home Economists has grown in recent years. Since 1931, when we first saw an opportunity to cultivate this important group which influences the food buying habits of millions of families, our publication advertising, our booklet distribution, and our correspondence, have grown by leaps and bounds. Each year these efforts have been more extensive, more practical, more appreciated; and each year our canned foods information has been sought after more eagerly.

Our last book for Home Economists went into an edition of over 120,000 copies—to schools, colleges, women's groups, dietitians, home demonstration agents in every State. "More About Canned Foods for the Home Economist" is expected to create an even greater demand, and to do an even better job for the great class of foods with which we both are so vitally concerned.

of an important executive of a tin can company sent to many home economists

# SEEDS FOR SPRING PLANTING\*

It is assumed that this discussion is of particular value to the home gardener interested in getting his money's worth in the materials that he buys and those which he harvests as the result of his outlay of

money, time, and labor.

The gardener buys (1) seeds; (2) plants; (3) fertilizers and soil amendments; (4) insecticides and fungicides; (5) tools and equipment; and occasionally (6) expert services. This discussion is written to aid him to make judicious selections. It cannot be expected to cover completely a field in which new discoveries are being made almost daily, but it is as up to date as possible. It embodies the opinions of a number of experts who have suggested a great many facts of value.

## The Racket

Just as soon as anything of merit is produced, imitations or substitutions for the genuine article will appear promptly. So it is with seed stocks. When a new variety is produced, true seed can be secured only from a limited number of authentic sources; but inferior or even worthless varieties will be quickly substituted for it by many dealers. It then becomes a question of knowing your seed source.

Probably the biggest racket is

in the lawn seed business and particularly in the seed mixtures sold in fancy sealed cartons or small cloth bags. While the list of kinds of seeds named on the package may appear formidable and enticing, one usually finds but little of the real lawn grass seed present. Because of keen price competition, much of the bulk of such mixtures is largely filler—such as chaffy redtop, leafage, and fine dirt. Then, too, many of the mixtures are weighted down with timothy, ryegrass, and other low-priced grass seeds of but little value in permanent The most vilawn building. cious racket or practice of all is that of a few dealers who are merely packeters, not growers, of flower and vegetable seeds, and who packet and repacket old, weak, or worthless seeds, some of which are mixed, misrepresented, or otherwise of but little real garden value.

## State Seed Laws

In some states there are seed control laws, but unless enforced, they are of but little value to the careful buyer. States with inadequate laws become the dumping ground for low-quality seed not salable elsewhere. Your state seed inspection bulletin will show which firms are complying with the law and which are selling good commercial grade of seed. Only one or two states have

<sup>\*</sup> Many home gardeners begin to think about seeds for their gardens as early as February. We, therefore, present an expert's advice on seeds in this issue of Consumers' Digest.

laws controlling the sale of flower seeds. A few have vegetable seed control laws. Only two or three state seed laws control the matter of germination of vegetable seeds; of these, only one (New York) requires the percentage of germination to appear on the packet. Two others require that the germination be equal to or above certain set standards. A few other states require that the "date when packeted" appear on the package. This is a delusion and a snare, since old seeds of questionable value may be recently packeted. Adherence to the spirit of the law depends entirely upon the integrity and policy of the seedsman or the packeter. The state seed testing laboratory in any state can answer definite inquiries as to whether or not any particular seed house or source is entirely reliable.

Certain seedsmen have specialties or novelties of their own breeding or selection on which they stake their reputations; and for such particular kinds of seed there are very few seedsmen (in some cases, only one) recognized as the best source. For the highest quality in a variety of seeds, it is necessary to buy from several seedsmen or, more properly, several sources. It is, therefore, necessary to know the sources. For such special information, one may use his own State Experiment Station services, the local farm bureau agent, or other trusted local authority on seeds. Seed stores frequently employ someone whose advice is trustworthy.

Many professional seedsmen maintain their own trial grounds and can thus assure the authenticity and quality of the seeds they offer. A few states, such as New York and Pennsylvania, are making control field trials of seed stocks offered, and reports of such work are often very valuable to buyers as well as being effective in keeping low-quality seed out of the state.

#### Flower Seeds

Saving one's own seed in the usual home garden may prove unsatisfactory unless careful selection is practised. Flower breeding and selection is a professional business, and for that reason, the best new selections and novelties are in the hands of a few breeders who will not sell direct but supply the trade. Thus it becomes doubly necessary to know your source for dependable flower seeds. Professional florists are in touch with such sources or organizations. Local seed stores who have a reputation to sustain, a few packeters, and a few mail-order houses can usually be depended upon to supply the best the market affords. If they are not willing to stand back of their offerings or know nothing much about them, it is wise to go elsewhere. Visits to neighboring flower gardens and inquiries as to where the seeds were purchased are often helpful.

Seed mixtures are very rarely

as good as the separate colors. Sometimes mixtures are but a means of getting rid of unused or unbalanced stocks. This is particularly true of "wild flower garden" mixtures which are the catch-all for many kinds of unsold seeds and which, when used, are disappointing since only the wild, weediest kinds survive.

Since but very few dependable flower seed sources sell from bulk stocks, the great bulk of the supply is available only in paper packets. Some of the best-known sources are listed as follows (companies known or believed to sell only wholesale are indicated by the letter "w"):

#### RECOMMENDED

Ferry-Morse Seed Co., Detroit and San Francisco.

Hart & Vick, Rochester, N.Y. Joseph Harris Co., Inc., Cold

Water, N.Y. Peter Henderson & Co., 35 Cortlandt St., New York City.

Mandeville & King Co., 1040 University Ave., Rochester, N.Y. [w]

Northrup, King & Co., Minneapolis, Minn.

The Page Seed Co., Greene, N.Y. Stumpp & Walter Co., 132

Church St., New York City. Sutton & Sons, Ltd., Reading, England.

Vaughan's Seed Store, Chicago and New York City.

## Lawn Seeds

Beware of all ready-mixed lawn seeding mixtures. It often pays to buy the species desired

separately in correct proportions and mix them yourself or else have your local dependable seedsman mix them upon your order. Note especially percentage of purity, germination, weed seed content, as well as date of the test. Remember that Kentucky bluegrass is the basis for general purpose lawns over much of the United States. Fescues and bents are special grasses for special purposes and one should fully understand their requirements and limitations before planting. A small percentage by weight of such seeds in a mixture will not mean that one will have a lawn of that kind. They may not be sufficient ever to be noticed or may be crowded out entirely. Fall seeding of lawns has invariably proven to be most successful. Most lawn areas are in woeful need of fertility. Seeding upon a hard, infertile soil is nearly always a waste of time and seed.

Some of the sources packing lawn seeding mixtures in closed cartons and listed as regards the dependability of their label statements and make-up of a useful general purpose mixture or formula are as follows (companies known or believed to sell only wholesale are indicated by letter "w"):

#### RECOMMENDED

The Albert Dickinson Co., 2750 W. 35, Chicago. [w]

Ferry-Morse Seed Co., Detroit and San Francisco

Cooperative G. L. F. Mills, Inc., Ithaca, N.Y.

Hart & Vick, Rochester, N.Y. O. M. Scott & Sons, Marysville, Ohio.

## Vegetable Seeds

The vegetable seed business in general is in a better or more orderly condition than the flower seed business. Most truck gardeners and commercial growers of vegetables buy seeds in bulk from special sources. For seeds for the home garden, the amateur has to depend largely upon three sources, viz., (a) the mail-order seed house which may be fairly dependable, (b) the local seed store which may be excellent or uncertain if held over, and poorly stored stock is sold year after year. Commission-box paperpacket seeds purchased at a variety of stores. Local hardwarestore bulk seeds may be very uncertain if held over, and poorly stored stock is sold year after year. Commission-box paperpackets may be excellent, intermediate, or worthless, depending upon who put them up and whether they are seedsmen packeters who have a reputation to maintain, or whether they are simply packeters of seeds as a commodity and for monetary profit only. The packeters of vegetable seeds selling widely may be listed as follows (companies known or believed to sell only wholesale are indicated by letter "w"):

### RECOMMENDED

Eastern States Farmers' Exchange, Box 1482, Springfield, Mass.

Ferry-Morse Seed Co., Detroit and San Francisco.

Cooperative G. L. F. Mills, Inc., Ithaca, N.Y.

Joseph Harris Co., Inc., Cold Water, N.Y.

Peter Henderson & Co., 35 Cortlandt St., New York City.

D. Landreth Seed Co., Bristol,

Northrup, King & Co., Minneapolis, Minn.

The Page Seed Co., Greene, N.Y. Max Schling Seedsmen, Inc., 618 Madison Ave., New York

City.
Stumpp & Walter Co., 132
Church St., New York City.
Vaughan's Seed Store, Chicago

and New York City.

The following are extensive growers of seeds and are specialists in production of the kinds of vegetables designated:

Cabbage and Related Species:
Alf. Christensen, Mt. Vernon,
Wash

J. M. Lupton & Son, Inc., Mattituck, L.I., N.Y. [w]

Thos. Madsen & Co., 17 Battery Place, New York City. E. Suhr Co., 135 Liberty St.,

New York City. Wisconsin Cabbage Seed Co.,

Lansing, Ill.

Sweet Corn:

Associated Seed Growers, New Haven, Conn.

Joseph Harris Co., Inc., Cold Water, N.Y.

D. Landreth Seed Co., Bristol, Pa.

K. C. Livermore, Honeoye Falls, N.Y.

Northrup, King & Co., Minneapolis, Minn.

F. H. Woodruff & Sons, Milford, Conn.

Tomatoes and Peppers:

Associated Seed Growers, New Haven, Conn.

Glick's Seed Farms, Smoketown, Pa.

Joseph Harris Co., Inc., Cold Water, N.Y.

Edgar F. Hurff Co., Swedesboro, N.J. [w]

D. Landreth Seed Co., Bristol, Pa.

Francis C. Stokes & Co., Inc., Moorestown, N.J.

Joseph White Co., Bridgeton, N.J. [w]

Peas and Beans:

Associated Seed Growers, New Haven, Conn.

Leonard Seed Co., 335 W. 35, Chicago.

Rogers Bros. Seed Co., 308 W. Washington, Chicago.

Washburn-Wilson Seed Co., Moscow, Idaho. [w]

F. H. Woodruff & Sons, Milford, Conn.

Beets and Carrots:

Associated Seed Growers, New Haven, Conn.

Ferry-Morse Seed Co., San Francisco, Calif.

Joseph Harris Co., Inc., Cold Water, N.Y.

J. M. Lupton & Son, Inc., Mattituck, L.I., N.Y. [w]

Waldo Rohnert Co., Gilroy, Calif. [w]

Celery and Lettuce:

Associated Seed Growers, New Haven, Conn. Ferry-Morse Seed Co. Pieters-Wheeler Seed Co., Gilroy, Calif.

Waldo Rohnert Co., Gilroy, Calif. [w]

Vine Crops — Cucumbers, Melons, Squash:

D. V. Burrell Seed Growers Co., Rocky Ford, Colo.

Ferry-Morse Seed Co., Detroit, Mich.

D. H. Gilbert, Monticello, Fla. Isbell Seed Co., 506-518 N. Mechanic St., Jackson, Mich.

J. C. Robinson Seed Co., Waterloo, Nebr.

Rocky Ford Cantaloupe Seed Breeders Association, Rocky Ford, Colo.

### REFERENCES

A few State Experiment Stations publish annually lists of suggested seed sources for the market gardener, also the results of trials of varieties of vegetables and possibly flowers. Many Stations supply gratis extension circulars dealing with culture and the selection of varieties suited to local needs. Bulletins dealing with lawn care and seeding can also be secured from such Experiment Stations as well as from the United States Department of Agriculture at Washington, D.C. A list of firms prosecuted for violation of the Federal Seed Act can also be secured from the United States Department of Agriculture, Division of Seed Investigations, Washington, D.C. The seed inspection bulletin issued by your State Experiment Station will usually carry timely information.

# ADVICE ON DRAWING A WILL

PERSON who dies without leaving a will is said to die "intestate." The State has laid down certain rules for the distribution of the property of its citizens who die intestate. It has, in effect, said to its citizens, "You may, by means of a will, order almost any distribution you care to of the property you own at the time of your death, but, if you die without having left any instructions with regard to the distribution of your property (i.e. without having left any will), you will be deemed to have intended your property to be distributed as follows," and then there is set forth a code of rules to govern distribution of an estate in case of intestacy. Consequently, there are many people who, knowing of the existence of these rules but not of their tenor, have the attitude that drawing a will is unnecessary because the law takes care of the situation arising on death. Those people should familiarize themselves with the provisions of that law before they rely on it to carry out their intentions.

It may well be that, while the law does provide for a distribution of the property of an intestate decedent, it does not provide for that distribution which the decedent would have wished. The provisions of the law are both technical and complicated. In certain circumstances, for instance, the law says that a hus-

band who dies intestate shall be deemed to have intended his widow to share the estate with his parents, or, it may be, with his brothers and sisters. It is always possible that that was the deceased husband's intention. But before he permits that intention to be implied, he ought to know that his failure to draw a will will result in such an implication.

And, of course, when property is distributed in accordance with the law governing intestate estates, it passes in equal shares to everyone in a class, if that class inherits at all. For instance, if a man's brothers and sisters are entitled to inherit, each brother and each sister gets by law precisely the same share in the intestate estate, though one of the brothers may be wealthy and unmarried, while another is married and living with his wife and children in abject poverty.

Moreover, the State also takes the position that, since some individual is necessary to take care of the mechanics involved in the actual distribution of the intestate property (such an individual is technically known as an "Administrator") it will designate for that purpose one of the decedent's nearest relatives. It should be borne in mind that the decedent, because he elected to die intestate, has not designated any person to attend to the necessary steps in distribution. The State must therefore designate

someone. It has no way of judging the probity of any individual who may be appointed. The decedent has given no hint of who, among his relatives, is most fit to be trusted, so the State solves the problem by holding that anybody who is designated as administrator must furnish a bond insuring that the administration of the estate will be according to law. Such a bond will be furnished-for a nice substantial fee-by a bonding company. But this bonding company does not know about the individual it has bonded any more than the State knew about him. So, to protect itself, the company insists that all the cash from the estate should be deposited in a bank account from which it may not be withdrawn except by checks countersigned by the bonding company, and all other assets of the estate must either be placed in its hands or in a safe deposit box from which no part of them can be withdrawn without that same company's consent.

All of the foregoing makes for complications and red tape. If any of the persons entitled to share in the distribution of the estate happen to be minors, i.e. under the age of twenty-one years, the complications and red tape, and consequently the expense of administration, are enormously increased. This situation arises whenever a person dies intestate leaving children under twenty-one years of age. The children are each entitled to their distributive share of their

parent's estate. The law, however, insists that money should not be paid to a minor, but only to some one over twenty-one years of age designated by a court order to receive payment on behalf of the minor. Such an individual is called a "Guardian." This guardian must in turn give a bond when appointed, insuring that the minor's money will be conserved, a separate bond being required for the funds of each minor. A premium for this bond is payable each year from the date of the guardians' appointment until the minor attains the age of twenty-one, a matter of no small expense, particularly if the decedent was survived by several children, all young. And, if the income of the minor's share is required for maintenance and education (and it always is) application must be made to the court each year for permission to expend that income. Each such application involves additional expense.

When the first of two parents dies, the surviving parent automatically becomes the guardian of the children. But even such surviving parent must furnish a guardian's bond unless the deceased parent's will provided for a guardianship without bond. If thereafter the surviving parent dies, the guardianship of the children must be disposed of by the court. Almost invariably the court will follow any instructions as to guardianship given in the deceased parent's will, but in the absence of any such will, the court is without guidance, and the children are likely to suffer and be put to unnecessary expense. By a will, the surviving parent can control who is to be the guardian of the children after his or her death.

The position of a woman with little children whose husband. the family breadwinner, has died, is hard enough in any event. If she and her husband succeeded in saving a little money in the period before his death, that money should be available after his death with as little delay and inconvenience as possible. The widow may well have to take a job herself-if she is lucky enough to get one-to have enough money to keep her family's head above water. Her attention and energy should not be diverted by worries over having to attend to a lot of unfamiliar legal details in connection with distributing her husband's estate. If, however, he left a will, his money will be available with the least possible delay and inconvenience, and the distribution of his estate will be accomplished with a minimum of strain, annoyance, and expense. And the widow's keeping of such a job as she may have succeeded in obtaining will not be jeopardized by her being compelled to devote her time and attention to such an extraneous matter as the distribution of her late husband's property.

If the only asset of an estate consists of a deposit in a savings bank, there is no necessity

for a will in the State of New York or in any other state having the same type of law as New York. Under this law, the savings bank deposit will pass to the beneficiary selected by the depositor, if the account is made out in the name of the depositor jointly with the selected beneficiary, or in trust for the selected beneficiary. If the account is a joint account, both parties named can draw on it; if it is a trust account, only the depositor can draw during his lifetime. Immediately upon his death, the trust account passes to the beneficiary, and the balance in the joint account to the other joint depositor, upon proof of death, presentation of the pass book, and a tax waiver. To get the money out of the savings bank, there is no need of having any executor appointed, of having the will probated, or of going to the expense of employing an attorney to look after the affairs of the estate. Moreover, the amount of the deposit may be withdrawn immediately after the death of the depositor without the delay necessary for the probate of a will. In states other than New York the depositor should consult with an officer of the savings bank in which the funds are deposited, in order to ascertain the law of that jurisdiction. If that law is different from the law of New York as outlined above, an attorney should be consulted to ascertain if there is any quick and inexpensive method, similar to that

permitted by the New York law, for passing on to the beneficiary the balance on deposit. It must be borne in mind, however, that this method, avoiding as it does the necessity for a will, is not to be used where the estate has any assets other than savings bank deposits.

Taking it all in all, unless a man either has no property to be distributed when he dies (other than the savings bank accounts referred to in the last paragraph) or is survived by no one he cares to have inherit the property he leaves, a properly drawn will, properly executed, is most desirable. Particularly is this true if the decedent leaves surviving him a wife, a child, or both. No matter how simple it is, a will is always to be preferred to an intestacy. The cost of a will need not be high, and

not to furnish a surviving spouse or heir with the relief a will affords is needlessly cruel, in view of the ease with which that difficulty can be avoided.

One word of warning: the law relating to wills is so technical that no layman can safely draw a will without legal advice. The State will allow a person to "stretch his dead hand up from the grave" to control the disposition of his property after death, but only if instructions for such disposition are embodied in a will executed in exact compliance with the complex rules for such documents. As the slightest deviation from these rules may cause a court to reject a will, the supervision of a lawyer is always advisable when a will is being drawn.

-WILLIAM S. WEISS

The sole difference between brown and white eggs, stated in the simplest terms, is that "birds in which the gene of major importance is in a homozygous condition lay eggs the shells of which are dark brown in color." (Poultry Breeding, by Morley A. Jull.) A Hitlerite geneticist would undoubtedly make a fine case for Aryan eggs if necessary, but the American approach would assume that the color of the shell, like the color of a man's hair, had very little bearing on the quality of that which it sheltered. As a matter of fact, no expert has ever been able to detect the slightest difference in flavor, quality or rich-

Eggs—the differerence between brown and white ness between a white and a brown-shelled egg. You must realize, however, that it isn't every hen who can boast a homozygous condition of her most important

From a letter of a poultry farmer

gene, and for that reason the red hen, or Rhode Island Red, as she is often called, takes no mean pride in producing eggs evidencing her homozygous superiority to other, lesser, breeds, and cannot help feeling, for that reason alone, that some preference should be given the brown egg, to say nothing of the psychological effect of wholesomeness and richness conveyed by the healthy tan of a brown-shelled egg.

## BLANKETS AND COMFORTERS

ost blankets on the market today are probably of the "part-wool" type, containing negligible quantities of wool. Wool blankets are superior to all-cotton ones in retaining heat, but a wool content of at least 40 per cent (far more than has been present in most part-wool blankets recently) is required to increase warmth appreciably over all-cotton. Any blankets containing less than 30 to 40 per cent wool should be avoided by those who do not consider themselves competent to judge the type of fiber used and the construction of the fabric. According to a conservative estimate, less than 1 per cent wool was actually present in many of the part-wool blankets, and 3/4 of them contained less than 10 per The commercial cent wool. standard adopted under the ægis of the Bureau of Standards by manufacturers and distributors of wool blankets in 1933, in which they agreed to state the minimum wool content of all blankets on the label and in advertising, has been widely disregarded and evaded, particularly by retailers, and is believed to afford little or no protection to consumers. Adulteration of blankets with jute (which is not durable) is subject to legal action.

How to buy blankets: Insist on label or guaranty written on the sales check that the blanket is "all wool" (meaning at least 98 per cent wool) and preferably

virgin wool1, or stating the minimum percentage of wool present, if it is a part-wool blanket. (Even if it is 100 per cent virgin wool, however, the wool may be of poor quality.) High-quality wool is springy and resilient when squeezed. Blankets of satisfactory durability, it would appear, should have a tensile strength of not less than 30 to 40 pounds per inch of width in the warp direction, and 20 to 30 pounds in the filling direction. Weight is to some extent an indication of quality: the heavier of two blankets of equal size will in general be warmer, stronger, and more durable. A high nap (the hairy or downy surface formed by brushing the fabric) increases warmth, but, in commercial blankets, especially the cheaper ones, will usually mean poorer wearing qualities. Solidcolor blankets are to be preferred. Good quality mercerized cotton, though not so showy, is more durable than shiny weighted silk as a binding material. Be sure to get a large enough blanket: an undersized blanket which cannot be tucked in well is no economy. The American Home Economics Association recommends the following sizes: for single beds, 60 by 80 inches to 60 by 90 inches; for three-quarter beds, 66 by 80 inches to 72

<sup>&</sup>lt;sup>1</sup>Virgin wool: wool used in manufacture for the first time, in contrast to reclaimed wool, or "shoddy," made from cast-off garments, rugs, etc.

by 90 inches; for double beds, 72 by 84 inches to 80 by 90 inches. In deciding on the required size, allow for the fact that blankets may shrink 10 per cent or more.

## Wool Blankets

The wool blankets listed were tested for Consumers' Research for warmth-retaining property, strength, and resistance to wear by rubbing. They were satisfactorily laundered once according to methods commonly accepted for laundering woolen blankets.

Of six wool blankets tested, we recommend the three which

follow.

### RECOMMENDED

Kenwood Arondac (Kenwood Mills, Albany, N.Y.) \$7.98.
72 in. x 85 in. All new wool.
Showed superior wearing qualities in Consumers' Research's wear test. Tensile strength satisfactory, though lacked balance.

Sonoma Wolgro (Calif. Wool Growers Assn., 595 Mission St., San Francisco) \$8.95 plus postage. 72 in. x 84 in. All new wool. Heaviest and best in warmth-retaining ability of six blankets tested. Good wearing qualities. Tensile strength high and well balanced.

Avoca (Avoca Hand-Weavers; distrib. Carol Brown, 15 Pinckney St., Boston) \$15 plus postage. 72 in. x 84 in. All new wool. Excelled in wearing qualities. Tensile strength high and well balanced. A superior blanket, but its price was high — nearly 100% above other good blankets. It would not be a good value for consumers who must economize.

# Cotton Blankets

RECOMMENDED

Beacon (Beacon Mfg. Co., New Bedford, Mass.)

Esmond (Esmond Blanket Mills, Esmond, R.I.)

Nashua (Nashua Mfg. Co., 48 Franklin St., Boston)

J. C. Penney Co., 330 W. 34 St., N.Y.C.

## Comforters RECOMMENDED

Imperi Comfort (Calif. Cotton Mills Co., Oakland; also distrib. Calif. Wool Growers Assn., 595 Mission St., San Francisco, as Humboldt wool bat) \$3.45 plus postage. 72 in. x 84 in. Woolen batting with cheesecloth covering (filling for a comforter); 3 lb total weight, 100% more effective in warmth-retaining ability, weight for weight, than any of the 3 wool blankets listed above. Tensile strength (due to covering) satisfactory, though lacked balance. Recommended on the assumption that it will be used as quilting with an additional cover duly knotted down, to offset the effect of an insufficient number of knotting points.

## TALCUMS AND FACE POWDERS

Talcum Powder

VALCUM powders of highest quality consist of pure ground talc with some added perfume. Chemically pure talc is not obtainable as the mineral deposits contain certain practically unremovable mineral impurities, but a high degree of chemical purity is desirable. Any large amount of impurity has a deleterious influence on the perfume and may, according to one authority, irritate the skin.

Zinc stearate, a common constituent of dusting and talcum powders, has caused bronchitis and bronchial pneumonia when inhaled by children who have pulled lids from powder containers. Extreme care should be taken in dusting infants with stearate powder not to permit the dust to be inhaled. Talcum or baby powder has been the cause of eczema where the child is sensitive to some constituent in it.

Purified talcum powder U.S.P. may be obtained from a wholesale druggist for 20 cents to 40 cents a pound. In the commercial product, perfume is added in the form of essential oils. A lowpriced oil for home use is natural lavender. There may be a little trouble in getting an even distribution of the scent in mixing at home. Bath powder and talcum powder are practically the same thing.

The following talcums were

tested in a university laboratory to determine freedom from mineral impurities and to estimate the lasting quality of their perfume. The brands listed contained comparatively small amounts of minerals other than talc. No attempt was made to rate the quality or desirability of the perfume. The price given is the retail price (for most brands) for the smallest unit sold (excluding the ten-cent size) as given in a well-known trade catalog.

Of sixteen talcum powders tested, we recommend the eight

which follow.

### RECOMMENDED

Dier-Kiss (Kerkoff, Paris; distrib. Alfred H. Smith Co., N.Y.C.) 25c. Perfume lasting.

Houbigant Talcum (Houbigant, Inc., N.Y.C.) 55c. Perfume moderately lasting.

Johnson's Baby Powder (Johnson & Johnson, New Bruns-wick, N.J.) 20c.

Lilac and Roses (Lander, Binghamton, N.Y.; distrib. F. W. Woolworth Co.) 10c. Perfume ephemeral.

L'Origan (Coty, Inc., N.Y.C.) \$1.10. Perfume lasting.

Mennen's for Men (Mennen Co., Newark, N.J.) 28c. Perfume ephemeral.

Yardley's Old English (Yardley & Co., Ltd., N.Y.C.) 55c. Perfume moderately lasting.

Z.B.T. Olive Oil Baby Powder (Crystal Corp., N.Y.C.) 25c.

#### Face Powder

The base of face powder is usually tale, to which are added coloring matter, perfume, and substances possessing adhesive properties, such as zinc- or magnesium-oxide, or kaolin, to make it adhere to the skin. The measure of good face powders is fineness and softness. One undesirable substance that is occasionally present in some face powders in fine particles is tremolite, a rock whose particles have about the same hardness as cutlery steel or ordinary window glass. It is also desirable that powders be free from starches, such as rice, wheat, and orris root, to which some people are unpleasantly sensitive. A typical formula, according to a cosmetic trade journal, contains talc, titanium dioxide, kaolin, oxide, zinc stearate, precipitated chalk, magnesium stearate, magnesium carbonate, perfume, and pigment color. All the face powders listed were tested for their mineralogical purity and fineness. Tests were not made for lead this year since it is Consumers' Research's belief, from results of previous tests and careful reading of trade literature, that lead is not likely to be present at all in any good grade of American face powders. No orris root was found in any of the powders listed.

Powder puffs should be washed frequently and replaced often.

Twenty-four face powders

were tested. We recommend the fifteen brands listed below.

#### RECOMMENDED

Armand Cold Cream Powder (The Armand Co., 124 Des Moines St., Des Moines, Ia.)

Harriet Hubbard Ayer's (Harriet Hubbard Ayer, Inc., 323 E. 34 St., N.Y.C.)

Chiffon (Primrose House Sales Co., 400 Madison Ave., N.Y.C.)

Coty "Air Spun" (Coty, Inc., 423 W. 55 St., N.Y.C.)

Drezma (Drezma, Inc., 130 W. 42 St., N.Y.C.)

Evening in Paris (Bourjois, Inc., 35 W. 34 St., N.Y.C.)

Max Factor's (Max Factor & Co., 1666 N. Highland Ave., Hollywood)

Faoen (Park & Tilford, 485 Fifth Ave., N.Y.C.)

Quelques Fleurs, No. 676 (Houbigant, Inc., 539 W. 45 St., N.Y.C.)

Lady Esther (Lady Esther Co., 2012 Ridge Ave., Evanston, Ill.)

Luxor Complexion Powder (Luxor, Ltd., 1355 W. 31 St., Chicago)

Marcelle, Non-Allergic (C. W. Beggs Sons & Co., 1741 N. Western Ave., Chicago)

Outdoor Girl Olive Oil Face Powder (The Outdoor Girl Co., 4316 N. Kilpatrick Ave., Chicago)

Pond's (Pond's Extract Co., 60 Hudson St., N.Y.C.)

Tangee (The George W. Luft Co., 34-12 36 Ave., Long Island City, N.Y.C.)

## CANNED DOG FOOD

Analyses and Standards

ANNED dog food has recently become an important commercial item. It has provided a means for the utilization of meat scrap which has hitherto been converted to tankage. It has also provided some manufacturers with another excellent means for marketing water to the consuming public. The meat products employed are generally of the most inferior quality, varying from wholesome, sound meat scraps to intestinal material and lung tissue. By the use of a cereal filler, a semi-solid product with a moisture content as high as 80 per cent has been found on the market. It is apparent that the consumer is paying as high a price for canned meat scrap as for rather expensive cuts at his local meat market.

Twenty-eight samples of fifteen brands of canned dog food have recently been analyzed. Of these, approximately 35 per cent of the brands showed short weight; 41 per cent were deficient in protein; 30 per cent deficient in fat; and 35 per cent contained excessive crude fiber. Moisture content varied from 59.9 per cent to 80 per cent; protein from the extremely low figure of 4.1 per cent to 18 per cent; fat from 1 per cent to 7.2 per cent; and crude fiber from 0.4 per cent to 1.1 per cent.

Certainly an alleged ration for

dogs containing little more than 4 per cent protein cannot be classed as a safe diet for dogs. The high moisture content of some of the foods cannot be attributed to the amount of fresh meat used, since the protein content would be correspondingly high. The practice of fortifying the protein content by the addition of a high percentage of soya bean flour is not a desirable one since the ration of a carnivorous animal such as the dog should contain a good percentage of proteins of animal origin.

It is logical that dog foods should contain 50 per cent by weight of fresh, sound meat or fish, that 75 per cent of the protein content be of animal or fish origin, with a minimum of 10 per cent protein and 2 per cent fat and a maximum of 1 per cent fiber. These limits are very liberal and provide a basis for the elimination of the obviously fraudulent mixtures.

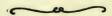
North Dakota has adopted such a standard to become effective on all canned dog food offered for sale after December 1, 1936. Several other states have adopted similar standards, notably California. Ethical manufacturers interested in preventing this class of product from becoming discredited would do well to promote the adoption of such a standard in all states and see to it that a high enough standard is set.

(Reprinted by permission of the North Dakota Regulatory Department)

It has been claimed that canned dog food is being diverted to use for human consumption. Some manufacturers can claim a major portion of credit for this condition. Statements such as "Fit for human food" and the like have undoubtedly led some unfortunate persons to utilize an apparently economical and safe meat supply.

That such statements are supposedly to be construed as connoting only wholesomeness of product and not as offering it for human consumption is an example of the ethics of modern high power advertising.

STATE FOOD COMMISSIONER AND CHEMIST NORTH DAKOTA REGULATORY DEPARTMENT.



A little pamphlet on dog food suggestions put out by the Agricultural Experiment Station of the Alabama Polytechnic Institute, Auburn, Alabama, suggests, that a dog can be fed very well on scraps from the kitchen, provided these consist of bread, meat, cooked vegetables, cereals, and some skim milk or buttermilk. For those who maintain more than one dog, the Experiment Station has developed a home-mixed dog ration as follows:

The Auburn Home-Mixed Dog Ration

Yellow corn meal......350 lbs. Wheat bran \_\_\_\_\_100 lbs. Wheat middlings .....200 lbs. Meat Scraps (55 to 60 per cent protein) .....100 lbs. Fish Meal (55 to 60

per cent protein) ......100 lbs. Skim milk powder or

dried buttermilk) ......100 lbs. Alfalfa meal or alfalfa

leaf meal \_\_\_\_\_ 20 lbs. Bone meal \_\_\_\_\_ 20 lbs.

Since it is desirable that this ra-

tion should not become stale or spoiled, it is important for the individual dog owner to mix it in much smaller quantity than that indicated in the standard formula; or several dog owners may cooperate in the purchasing and mixing of the ingredients. The ration may be fed dry, or moistened with water or milk. or it may be moistened with water and boiled or baked. Cooking is not, however, necessary.

Since we believe that canned dog food should be fed only in an emergency, or in the event that freshly prepared food is not obtainable, no brands are rated higher than "qualified recommendation." The rating is of course by Consumers' Research, and the North Dakota State Officials are in no way responsible for the classification.

Of twenty brands of canned dog food tested, we recommend, with the qualifications indicated, only five, the brands which follow.

QUALIFIED RECOMMENDATION

Maro-Meat (Chappel Bros., Inc., Rockford, Ill.) Ingredients:

Claimed—Meat and meat food products, marrow fat, wheat flour, and charcoal. Found-Skeletal muscle, gristle and fat, ground bone, charcoal, and flour. Ground bone not declared in list of ingredients.

Pard Dog Food (Swift & Co., Chicago) Ingredients: Claimed -Meat by-products, meats, wheat, barley, dry skim milk, tomatoes, edible bone, sodium chloride, and cod-liver oil. Found-The claimed ingredients, except that skim milk powder was not identified. The meat products were of skeletal muscle with some heart and kidney material.

Red Heart Dog Food, Diet B (John Morrell & Co., Ottumwa, Iowa) Ingredients: Claimed-Meat by-products, beef, rice, sov bean meal, cured fish, wheat flour, bone meal, wheat bran, cod-liver oil. Found-As claimed. Statement "Fit for human food" objectionable.

Red Heart Dog Food, Diet C (John Morrell & Co.) Ingredients: Claimed - Meat byproducts, beef, rice, soy bean meal, wheat flour, bone meal, wheat bran, cheese, salt, and cod-liver oil. Found - As claimed. Statement "Fit for human food" objectionable.

Rival Brand Dog Food (Rival Packing Co., Chicago) Ingredients: Claimed-Meat food product with cooked rolled oats, barley, and vegetable flour. Found-As claimed; the meat products contained lung tissue and stomach wall. Statement "Fit for human food" objectionable. The statement of analysis was inconspicuous.

Basis of Competition

THE basis of competition has shifted largely from the making of goods at the least cost to the making of the greatest appeal, and the consequent selling of the goods more or less regardless of cost. The physical operation of making has become subordinate to the psychological aspect of

selling. Price has been supplanted by real or alleged quality and service as a basis of rivalry.

—Floyd L. Vaughan in Marketing and Advertising

WHEN the products of industry pass over the retail counter, economic science almost entirely loses count of them. They pass from sight into the mysterious maw of "the consumer." It has never occurred to the economist that it is just as important to have a clear and close knowl-

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edge of what happens to products when they have become consumer's goods, as it is to trace their history in the productive stages.

# ELECTRIC HEATING PADS

Several times during the past three or four years Consumers' Research has warned its readers against the dangers of the usual type of electric heating pads present serious dangers of electric shock and of burning.

Since the last report of accidents from electric heating pads by Consumers' Research a year ago, further serious and even fatal accidents have been brought to our attention. To enumerate these is perhaps the most effective, and for a few readers the only, way of teaching the important lesson that electric heating pads are dangerous, and that Consumers' Research is not crying Wolf! Wolf! when it points with alarm to the dangers of poorly designed and carelessly inspected electrical appliances.

## Heating Pad Made Fatal by Boy's Body Moisture

Newton, Mass., Oct. 21.—The death of Francis X. Rohmer, Jr., aged 17, injured in a scrub football game yesterday, was due to electrocution, Medical Examiner T. Morton Gallagher announced tonight after an autopsy.

A heating pad applied to the boy's injured thigh had slipped around to his back and Dr. Gallagher said chloride and salt in the body moisture, which saturated the pad, acted as a conductor and allowed the electrical current to pass into the body. The thigh injury was not serious. (New York Times.)

### Heating Pad Burns Prove Fatal to De Kalb Athlete

De Kalb, Ill., April 20.—Larry Rankin, 24, athlete of the De Kalb Teachers' College, died this morning at his home in Kingston, Ill. . . . infected burns received from heating pads used to revive him, proved fatal. (Chicago Tribune.)

### Three Fires in Night Occur in Boy's Bed; Forgot to Disconnect Electrical Warming Pad

Three times early today fire occurred in the bed on which slept Frankie, aged 12, son of Mr. and Mrs. F. N. Boyd, 52 Linsmore Cres.... Frankie, who sleeps in a back bedroom, placed an electric pad in his bed last night and when he retired neglected to disconnect it.

"I could smell something scorching, so I went to his room and pulled the pad from under him," said Mrs. Boyd. "There didn't seem to be any fire and Frankie went to sleep again. Later he woke up coughing from smoke. He said his bed was on fire. Water was poured on the bedding and mattress. Frank went into another bedroom to sleep, and we all went back to bed." It was shortly after 6 a.m. when firemen were called to the home. (Toronto Star.)

## Crippled Woman of 70 Burns to Death in Bed

An invalid seventy-year-old woman was burned to death and a score of families routed by fire early today in a tenement at 331 West Seventeenth Street.

An electric heating pad ignited the bed clothing of Mrs. Mary McCrystal, who lived alone in a ground-floor apartment of the five-story building, firemen said. A janitor discovered the fire about 4:30 A.M. and aroused all tenants except Mrs. McCrystal. She was found dead in bed by firemen. . . . (New York Post.)

## Widow Killed by Warming Pad

San Francisco, June 22.—Mrs. Rosalyn Elliott, 39 years of age, died today in a hospital from burns suffered when an overheated warming pad set her night clothes aflame.

Mrs. Elliott, a widow, reached a telephone and called for help. Police and firemen arrived to find her unconscious on the floor of her apartment. (Los Angeles

Times.)

Readers of Consumers' Research have reported to us many accidents with electric heating pads which have not been published in the press. One letter said: "An acquaintance coming home late at night, cold and very tired, decided to take her heating pad to bed with her. Some time later she awakened and smelled an odor of burning. Thinking of the pad, but still half asleep, she pushed it out of the bed. Immediately it burst into flames, and when she jumped up to put out that fire, her bedding also burst into flames."

Another reader wrote: "Recently an electric pad which Mrs. . . . has been using for quite some time, set the bedding afire, doing considerable damage."

The following is a report from another reader: "Thought it might interest you that my . . . electric pad (cost \$10, 4 yrs. ago) had a short circuit two weeks ago. I had placed it on 'medium' to warm my bed before retiring. It was on 15 minutes and burned holes through two sheets, two double blankets, a flannel sheeting, and scorched a heavy ticking mattress pad. The insurance company is allowing me \$32.10 damages."

Still another wrote to us that "Friday night, June 28, Mrs. Fred . . . went to bed with a heating pad on her aching back. When she woke up some hours later, she was so badly burned that the skin blistered and she had to call Dr. . . . to care for her burns. She is a woman in her seventies. Fortunately the burns were not serious and she was able to be around again the

next day."

One more instance will suffice: "I... would like to go on record for your files as having once been severely shocked by an electric heater pad... when the pad had become dampened by perspiration enough to conduct current. It was severe enough to make me involuntarily jump out of bed. Having a fairly strong heart it produced nothing more dangerous than profanity, but with an invalid suffering from heart trouble, it might easily have caused death."

# PATENT MEDICINES

the so-called patent medicines are not patented at all. A trade-mark or name is improvised and is registered at the patent office and that is all there is to it. But to prevent misunderstanding I will call them patent medicines, for that is the name commonly employed for nostrums.

The old Food and Drug Act is very incomplete. One of the great weaknesses is that an advertiser can say one thing on the label and make a much stronger claim in his advertising material. The following is a good example. I will give the label claims and advertising claims of a female preparation which has been on the market for over sixty years. On the label it says-"recommended for the treatment of non-surgical cases of the female generative organs." Claims made in advertising matter: "for falling of the womb, ulceration, leucorrhea, irregular or painful periods." Observe the extreme claims of the advertising matter and the relatively modest claims on the label. The old law is indeed very weak. One of the characteristics of patent medicine advertising is the extreme and sometimes fraudulent claims which are made.

I think that the new law should be made more stringent regarding matters of fact. It should prevent fraudulent claims and misrepresentations, and should compel a statement of ingredients with amounts. The above patent medicine is a good example. Analysis shows that its only active ingredient is alcohol which it contains to the extent of 15 per cent. One can expect as much medicinal action from it as from an equal dose of wine. Now wines are no good for ulcers, falling of the womb, irregularities, etc. I think that the fraudulent claims are quite evident.

Another class of preparations which is very important is the group of fat reducers. If a fat reducing preparation will work, it is dangerous, and its use should be under the supervision of a reputable physician. If it cannot work, it is a fraud. Many of them are frauds. Some will work. Some are laxatives and get rid only of body water. All them make extravagant claims. For instance, one advertiser says of his fat reducer: "fat reducer is a pleasant external treatment which reduces waistline, fat at back of neck, and all other corpulent parts of the body in an incredibly short time. You can treat yourself at home. You can use it in the bath." This preparation is a fraud.

You might ask, "Why do people buy them? Why do they say they are cured?" Well, most people recover from ordinary ailments in spite of the medicines they take. If there is a serious

derangement of some kind you had better see your doctor. Do not try to treat yourself, but go to the only one who is trained to treat disease—a doctor. You wouldn't take your car to a quack mechanic. Isn't your health worth more than a car?

People buy because they are bombarded by high pressure advertising. Every possible means of communication is utilized. The mails, newspapers, magazines, radio all have their share.

I have here an advertisement of a concern which makes it a business to produce testimonials for all kinds of goods, medicines included. It reads: "For those manufacturers who require testimonials and posings for their advertising, our service is available. We get the indorsement and posings of operatic stars, famous athletes, college pro-fessors, moving picture stars and other famous personalities at a price varying from \$150 to \$25,-000 depending on the standing of the individual. Millions of people are attracted to moving picture stars and hence can be attracted to national advertising through pictures and indorsements"

I have another advertising circular directed to manufacturers of patent medicines. This circular is put out by what are called letter brokers who buy up small town newspapers. If you know the small town newspapers as well as I, you will know that if any one is sick, the name, illness, and home address is pub-

lished in the paper. Here is what they say: "The right way to business success. Use original medical mailing lists. Use the direct appeal by personal letters while your customers are sick. Strike while the iron is hot. We furnish freshly compiled mailing lists with correct mailing addresses of those afflicted with the following ailments: intestinal complaints, rheumatism, constipation, dyspepsia, nervous debility, female troubles, blood poison, bust developers, consumption, drunkenness, eczema, eye troubles, obesity, facial blemishes, skin diseases, syphilis, epilepsy, heart disease, kidney complaints, etc., at the following rates: 1M-\$5; 5M-\$20; 10M -\$35; 50M-\$125. Cancer and rupture and deafness cases a flat rate of \$20 per M." Well, I think that the firm which furnishes testimonials and posings and the firm of letter brokers certainly speak for themselves, and make clear this type of advertising.

I certainly think that it would be a fine thing if a new Food and Drug Law could be enacted which would eliminate extravagant claims on the container, on the wrapper, in the newspaper, through the mails, and over the radio. The legitimate business man would welcome it. The professional pharmacist or druggist would welcome it and so would the doctor. The people, who are the victims, should welcome it for their protection.

-James Boynton, Western State Teachers College, Mich.

## "ATHLETE'S FOOT"

(Ringworm of the Foot)

HIS affection is extremely infectious, spreading by contact with damp floors, towels, etc. It is now very common, particularly in warm weather, among those who frequent dormitories, barracks, gymnasiums, swimming pools, etc.

Sometimes the disease may become very severe or other infections occur, resulting in serious consequences; the layman therefore should not take the ailment too lightly. Practically all of the remedies for this ailment sold by commercial advertising are unreliable, and their purchase will be a waste of time and money and perhaps may involve some risk of harm.

Before applying any remedy, the feet should be carefully cleaned (but soap should not be used in washing the affected areas, as this may aggravate the condition) and all skin debris or dirt removed, using a brush

if necessary.

It is the usual practice to make applications of germicide more frequent at first, and then to taper off; for example, once a day until the vesicles do not appear, then once every other day, then once a week for a period of several months. The infection remaining in shoes should be destroyed by swishing thoroughly with formaldehyde solution (one ounce of standard formaldehyde to five ounces of wa-

ter: note that this is not safe for application to the skin), or by leaving for twelve hours a small cup of this solution in the toe of each shoe covered in such a way as to confine the air inside. Shoes should next be aired well for twelve hours. Socks should be sterilized by boiling. Silk and wool may be sterilized by first washing and then soaking in a solution of mercuric chloride (one part of mercuric chloride in one thousand parts of water, very poisonous) for a day. Be sure to rinse carefully and thoroughly before drying.

Treatment should be continued for a period after apparent cure has been accomplished, for infection is likely to recur as a result of hidden organisms that have escaped the effects of the

treatments.

Persistent or extensive infections should receive medical attention, preferably by a dermatologist (skin specialist).

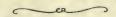
### RECOMMENDED

Liquor Iodi Compositus, Lugol's Solution (not the well-known tincture of iodine). Apply only to limited areas by means of an applicator; if large areas are affected, they should not be treated by home methods. Both a 1% solution and a 0.1% solution (measured in terms of the iodine content) in 15 minutes sterilized skin scales affected by the organism of

"athlete's foot." A .01% solution was effective in 1 hour. "As all these dilutions are such as can be safely used on the skin, iodine [not the tincture] would seem to be of great promise, as judged by our studies."

Tincture of iodine 3 to 5%. Be very careful; avoid both excessive and continued use; iodine is dangerous to tissues when covered by a bandage or otherwise confined so as to exclude air.

Whitfield's Ointment. May be useful, but not a specific.



## Competition and Consumer Choice

Competition protects consumers against inferior ware only when they know good quality from bad; it protects laborers from unguarded machines only when they know which employers have and which have not guarded their machines. In other words, competition is an efficient protective agency only when buyers or sellers have the information necessary to make intelligent choices. It fails, for example, to protect consumers against milk from tubercular cattle because the ordinary buyer of milk has no way of distinguishing the milk of healthy cows from that of diseased.

The information needed for intelligent choices may be available, and yet many buyers or sellers may be too ignorant, too careless, too neglectful of their own interests to use it.

As soon as business enterprises gain substantial influences over our choices, a problem of control is created because the knowledge and skill of the marketing experts are devoted to making men desire, not necessarily the things which are beneficial to them, but the things which it is profitable to industry for them to demand.

-Sumner Slichter in Modern Economic Society

## SOME OFFICE SUPPLIES

Typewriter Ribbons

THERE is no relation between the price of ribbons and the amount of typing they will do. In Consumers' Research's test, a ribbon costing 20 cents gave approximately three times as much satisfactory typed work as one ribbon costing \$1. It represented fifteen times the ribbon service, per cent of expenditure, that a ribbon costing \$1 did. The figures in parentheses following the listings are proportional to the number of satisfactory key strokes obtained from that particular make for each cent of ribbon cost.

Of thirty ribbons tested we recommend the three which

follow.

RECOMMENDED

Herald Square (Distrib. eastern stores of F. W. Woolworth Co.; will be elsewhere available if sufficient consumer demand develops) 20c each. (15,500)

Quality, Cat. No. 57—8591-94-96 (Distrib. Montgomery Ward & Co.) 33c each, 3 for 95c. (8180) (now 29c ea.)

Reliance (H. M. Storms Co., Grand Ave. & Dean St., Brooklyn, N. Y.) 60c each, \$6 per doz. (7000)

Adding Machines

-8---

"Pocket" or other very compact adding devices, often worked by a pencil or a stylus, are of no real value. To the normally gifted person, even simple addition on them is slower than mental calculation, and gives as much trouble.

Real adding machines are of two main types, key drive and crank drive. Key-drive machines can do ordinary addition, when used by experts, more rapidly than other machines and can also be used efficiently for subtraction, multiplication, division, and square root, comparing favorably for these operations with complicated electric "calculators" like the Mercedes. They have the disadvantage, however, that they make no printed list of the figures added, and hence verifying the operation can be done only by repeating the whole process. Key-drive machines require real training and skill for efficient and accurate operation.

Most crank-drive machines list each item on a strip of paper. The ten-key machines of this type are faster and more convenient than the nine-key-percolumn ("full-keyboard") kind, regardless of advertisements to the contrary. Listing or crank-drive machines can be used for small multiplication and division problems. Direct-subtraction machines may cost extra. See these operations done and try them yourself on your own selected

figures before buying.

## Key-drive Machines

RECOMMENDED

Burroughs Calculator (Burroughs Adding Machine Co.,

Detroit) \$80 up. Not to be confused with the same maker's crank-drive adding machines, which are full-keyboard listing machines.

Comptometer (The Felt & Tarrant Mfg. Co., 1735 N. Paulina St., Chicago) \$300 up.

#### Crank-drive Machines

#### RECOMMENDED

Barrett Figuring Machine (Lanston Monotype Machine Co., 24 and Locust Sts., Phila.) \$45 f.o.b. Phila. or N.Y.C. nine column, direct-subtracting, non-listing.

Remington, Dalton, Monarch (Remington Rand, Inc., Buffalo, N. Y.) Seven column, \$60. Nine column \$75 up.

Underwood Sundstrand (Underwood Elliott Fischer Co., 342 Madison Ave., N.Y.C.) \$100 up. Electric subtracting machines \$125 up.

# Calculating Machines

Most calculating machines work by repeated addition and subtraction, but as they are expressly designed for multiplication and division, they are much more convenient for these calculations than are ordinary adding machines. Conversely, they are less convenient for addition and subtraction. For the casual user, electric drive is superfluous.

#### RECOMMENDED

Brunsviga (Distrib. Allen Calculators, Inc., Grand Rapids, Mich.) \$150 up.

Facit 10-key calculator (Distrib. Allen Calculators, Inc.) Hand model \$195. Possibly the best machine for all-round use.

Madas and Millionaire (Distrib. W. A. Morschhauser, 122 E. 25 St., N.Y.C.) Millionaire expensive and mainly useful for multiplication.

Marchant (Marchant Calculating Machine Co., Oakland, Calif.) \$200.

Mathematon (Distrib. Ralph C. Coxhead Corp., 17 Park Place, N.Y.C.) Expensive.

Mercedes (Distrib. Demarest Sales Co., Inc., 76 Varick St., N.Y.C.) Excellent but expensive automatic calculators.

Monroe (Monroe Calculating Machine Co., Orange, N.J.; distrib. only through agencies confined to Monroe products) Keyboard models \$175 up.

Rapid (Distrib. Allen Calculators, Inc.) \$125 up.

#### Numbering Machines

Lever-type numbering machines, in which the numbering wheels are advanced by moving a hand lever instead of by an automatic mechanical operation, have been found by government investigators to be at least twenty times as accurate as the best automatic machines tested. Lever-type machines are simpler in design than the more common automatic device, but their cost is approximately the same for machines of similar quality. Automatic machines, however,

are obtainable in much cheaper models than the simpler and better lever type.

#### RECOMMENDED

American (American Numbering Machine Co., Atlantic & Shepherd Aves., Brooklyn, N.Y.)

Bates (Bates Mfg. Co., Orange, N.J.) Hand numbering ma-

chines.

# Mechanical Pencils

#### RECOMMENDED

Scripto No. 4 (Scripto Mfg. Co., Atlanta, Ga.) 10c.

#### <del>\_\_\_</del>

#### Eraser Attachments

#### RECOMMENDED

E. Faber Point Protector and Clamp Eraser Attachment, No. 1682 (Eberhard Faber, 37 Greenpoint Ave., Brooklyn, N.Y.) 5c. Uses No. 1281 refills, 4 for 5c. Has simple but efficient provision for moving eraser out as rubber wears.

#### <del>\_\_\_\_</del>

#### Colored Pencils

Many colored pencil markings fade quickly when exposed to strong light. Only about 50 per cent of the colored pencil marks tested by Consumers' Research stood up without serious fading for six months or more. Red pencils as a class faded more seriously than the blue. Ratings are based on tests of the permanence of the markings, which is the predominant consideration for most uses.

Of 40 colored pencils tested, we recommend the 16 which follow.

#### RECOMMENDED

#### Pencils-Red

The Winner, No. 2381 (A. W. Faber, Inc., 41 Dickerson St., Newark, N.J.) 10c.

Okay Red, No. 636 (Eberhard Faber, 37 Greenpoint Ave.,

Brooklyn, N.Y.) 10c.

Paperex Red, No. 49 (Joseph Dixon Crucible Co., Wayne and Monmouth Sts. Jersey City, N.J.) 10c.

No. 515 G. B. (American Crayon Co., 2002 Hayes Ave., San-

dusky, Ohio) 10c.

#### Pencils-Blue

Venus Blue, No. 200 (American Pencil Co.) 10c

Pencil Co.) 10c. Unique Blue, No. 1206 (American Pencil Co.) 10c.

No. 1201 BB (American Pencil Co.) 10c.

No. 151-T (Blaisdell Pencil Co., 141 Berkley St., Phila.) 10c.

Best Sky Blue, No. 320 (Joseph Dixon Crucible Co.) 10c.

Thin-Ex Blue, No. 376 (Joseph Dixon Crucible Co.) 10c.

Okay Blue, No. 635 (Eberhard Faber) 10c.

Rainbow, No. 6615 (Eberhard Faber) 10c.

The Winner, No. 2382 (A. W. Faber, Inc.) 10c.

Verithin Indigo Blue, No. 741 (Eagle Pencil Co., 703 E. 13 St., N.Y.C.) 10c.

Blue, No. 1203 (General Pencil Co., 67 Fleet St., Jersey City, N.J.) 10c. Gombination Pencils—Red and Blue Flora, No. 973C (Swan Pencil Co., 221 Fourth Ave., N.Y.C.) 10c.

China Marking Pencils—Red U. S. A., No. 786 (Eberhard Faber) 15c.

China Marking Pencils—Blue Universal Marker, No. 55 (American Pencil Co.) 15c. China Marking, No. 168 (Blaisdell Pencil Co.) 15c. No. 785 (Eberhard Faber) 15c.



## Pencil Sharpeners RECOMMENDED

Boston, Model L (C. Howard Hunt Pen Co., Camden, N.J.) List price \$1.25, but may be found at much lower prices in cut-rate stores—down to 74c. Wall type.



#### Rubber Bands

The products of five manufacturers of rubber bands in the three most commonly used sizes, 16, 32, and 64 (approximately 2½, 3, and 3½ inches, respectively, in the unstretched condition), have been tested for comparative durability under ex-

posure to light in a glazed window, in a room kept at ordinary temperature. Duplicate check tests were made with the bands exposed to outdoor conditions. On the basis of these results, of the nine brands tested, we recommend the four which follow.

#### RECOMMENDED

Elmhurst Rubber Co., Inc., Elmhurst, Long Island, N.Y. 50c per lb.

Continental (Distrib. Goldsmith Bros., 77 Nassau St., N.Y.C.)

45c per 1b.

Janus (A. W. Faber, Newark, N.J.) 75c per lb plus postage. Tyer (Tyer Rubber Co., Andover, Mass.; distrib. F. W. Woolworth Co.) 5c per bundle (equivalent to 75c per lb).

### Envelope Sealers

#### RECOMMENDED

Speedy-Way Sealer (Speedy-Way Mfg. Co., 314 W. 30 St., N.Y.C.) 35c. Sold direct only. When, due to usage, felt pad becomes impregnated with gum from envelopes and prevents water from seeping through freely, wash with soap and hot water.

The Advertising
Mirror

BAD breath, chapped hands, come from definite causes. The advertising man knows these causes, but more often ignores the plain facts, ignores them and instead puts a mirror up to a woman that lies—lies beautifully. The advertising mirror reflects the woman any woman

wants to be, not the one she is.

Adela J. Landau in Advertising & Selling

#### CONSUMERS CAN WIN

THE steps by which social improvement occurs are many and usually unaccompanied by the kind of drama which has news value. Consumers' interests are so widely diffused that they lack the appeal of the exceptional which newspapers find in home runs and homicides.

It is not enough to be painfully aware of the extent and gravity of the problems which confront consumers. There are many things which may be done besides resigning ourselves to an acceptance of things as they are. Only the lazy and unimaginative consumer will ask to be let alone that he may be poisoned and die in peace. Others will wish to proceed upon the basis of an established American folkway by doing something about it. A consumers' movement will eventually provide its own slogans and drama. Meanwhile its foundations must be laid in a solid substance of education. Even a small body of trained consumers is a distinct social asset in any kind of society. The larger the body of trained consumers becomes, the greater the promise of an eventual reorientation of the entire system of production and distribution around the simple principle that goods and services derive their significant value from utility.

Special Consumers' Shelves in Libraries

books and pamphlets published by the Bureau of Investigation of the American Medical Association. The Newark, N. J., Public Library has shown what can be done in the matter of consumers' education in other ways than by providing and featuring books on consumers' problems. The Public Library in cooperation with the Newark Museum as-A few progressive librarians sembled a consumers' exhibit

have cooperated with consumers in having special shelves or tables for books and pamphlets on consumer questions in library reference rooms. The field of consumers' literature is so new that its classification is a problem still unsolved by most librarians. The term "consumption" in many card indexes refers to a disease rather than to a branch of economics. A consumer's shelf or table in the local library will be of great value in overcoming this handicap. Besides the wellknown best sellers in the field of consumers' books, there are many pamphlets which should have a place in local libraries. Superintendent of Documents, Washington, D. C., will provide anyone with a check list of Government Publications for the use of Consumers. These pamphlets contain instructions for homecraft, including such subjects as Canning Fruits and Vegetables at Home and Care of Food in the Home. In addition to these, every library should have the

which is now being moved on a rotating schedule from one branch of the Library to another. A news release sent out by those in charge of the exhibit gives the following description of its character: "Not content with assembling all the current books and periodicals on the subject, the assistants went shopping in Newark's stores and brought back the olives and the tooth paste, so to speak, to illustrate their points. As an example of training the consumer to know what he is buying, the Museum exhibits two bottles of olive oil. one apparently larger than the other, although actually it contains an ounce less fluid than the apparently smaller one. Olives packed in a jar whose glass magnifies their size is another featured item. False bottoms, slackfilled boxes, and fruits artificially colored are also illustrated. A series of tests for dress goods and other textiles, with graphic illustration of the way they work, has been carefully worked out, with actual samples of fabrics purchased locally. Tests for weighted silks, for strength, for wools and cottons are worked out and results shown. A model medicine chest is shown including a set of standard inexpensive drugs useful for most family purposes, while the notable work of the Newark Board of Health maintaining sanitary food purchase conditions in this city is also featured in another section." The Newark Public Library has pointed the way.

#### Consumer Courses in School

Instruction in consumer courses in primary, secondary and higher educational institutions is still in the pioneering stage. There are few text books available for the purpose. Some secondary schools and colleges have used the Annual Handbook of Consumers' Research as a text book for classes. It is available on special terms for this purpose. Outlines for consumer courses are also available.

#### Making Consumer Protests Articulate

There is a double value in writing a letter of protest to a manufacturer whose products have been deficient in performance. It puts the manufacturer on notice that there are some consumers who understand the meaning of quality and are able to compare performance with advertised claims. If properly done, it also has its important educational value for the individual consumer. So far as possible within the limitations of the consumer's technical knowledge, a letter of protest should go to fundamentals of the products' characteristics. The tone and substance of "crank" letters should be avoided. In the files of Consumers' Research there are hundreds of consumers' letters written with care and scientific forcefulness. In many instances, they have received the careful attention of higher executives in manufacturing concerns. Even where they have been indignantly resented as the work of busybodies meddling with the "sacred institutional rights of merchandise," there is an important educational residue for the consumer. It has been said that business concerns, in general, will expend more effort to win back one lost patron than they will to keep the ninety and nine who have never strayed from the fold.

#### Expert Guidance in Buying

The consumer who does not avail himself of some expert guidance in buying takes the risk of having his income seriously curtailed, in effect, through mistakes in judging merchandise. Even under our present system of production, there are extremely wide ranges of quality which are not discernible by the individual consumer who lacks technical guidance. By availing himself of expert guidance in his buying, the consumer puts a premium upon quality production. Often health and life itself are dependent upon avoiding quackeries, shoddy, hazards and poisons.

#### Group Grading and Testing

Any local group of consumers can perform helpful tests upon such commodities as canned fruits and vegetables. We call attention to a group in an Ohio town which was organized as a Consumers' County Council and which tested and graded canned goods with the assistance of the local university. Methods of making such tests are available to those who desire them. In the process of consumer testing and

grading, many things may be learned besides which brands to buy and which to avoid. The meaninglessness of price is certain to be driven home. Tricks of adulteration, short measure, and other malpractices of trade are real to all concerned.

#### Use of Schools for Testing Consumers' Goods

Almost every American community has a high school with a certain amount of laboratory facilities. Fuller utilization of these facilities in the interest of consumers will result from a regular program of testing consumers' goods. It may be necessary at times to overcome business pressures in order to place these laboratory facilities at the disposal of consumers. There are hundreds of commodities for the testing of which no elaborate or costly equipment is required. Local consumers groups can, if they desire, interest high school principals and science teachers in community projects of this sort.

#### Use of Agricultural Experiment Stations

Working in the interest of farm producers, a number of Agricultural Experiment Stations in the United States have already established the precedent of making tests and analyses of oil, gas, fertilizers, seeds, farm machinery, and insecticides. These commodities have been listed by brand name in the reports of these tests. Organized consumers in the various States

should expect similar service from these tax-supported experi-

#### Buying on Specifications

The Government of the United States and many of the most progressive business concerns make their purchases on specifications. They do not trust in brand names or advertising claims. In the present state of affairs, consumers are not able to practice specification buying on any large scale. Some groups of consumers have made important experiments in this field, however. In an Iowa city recently a group of consumers drew up specifications for bread and offered them to the bakers of the city. One baker out of many agreed to bake bread according to the consumers' specifications. They agreed to buy his bread. According to latest reports, the arrangement had broken down. The idea is nevertheless worthy of the further consideration of consumers' groups.

#### Formulae and Homecraft

Some consumers' goods may be made in the home with a minimum of effort. There is no thought of a return to homecraft generally as a solution of the problems of consumers, but there are distinct values of education and economy which may be inculcated by making products according to simple formulae in the home. Ink, tooth pastes and powders, bread, and many cosmetics may be so made. There

are obvious advantages in collective activity of this kind.

CONSUMERS CAN WIN

#### Study Trade Practices

The trade practices which the children in many secondary schools have studied and reported upon with such skill may be studied with profit by any consumer or group of consumers. There is social health in skepticism. It obviously does not take a great deal of articulate skepticism to press home to manufacturers and advertisers that consumers are in revolt against fraud, adulteration and misrepresentation. The associate editor of a well-known woman's magazine recently wrote to her editor, as follows: "The talks went over well, the publicity has been generous, but that darned Consumers' Research Bulletin has simply raised the devil. The consumers here, the housewives, the club members and advertising staffs of departmental stores have been deluged with Consumers' Research literature. The store people and advertising are in a state of panic." They will be in still more of a panic when a really articulate and informed consumers' movement gets up momentum. The panic, however, will be simply a prelude to improvement.

#### Read Trade Journals

If consumers would read a few trade journals regularly, they would receive an education on the state of business and trade practices which can never be had by reading a great deal of the more common variety of radical literature. Some of the larger city libraries receive trade journals representative of many industries. A full list of the trade journals published by McGraw-Hill may be had for the asking. If the local library of the consumer receives any of them, he will be instructed authoritatively by perusing them regularly.

#### Pressure on Government

There is enough of democracy in the processes of American government to make it important for consumers to write their legislative representatives on matters affecting the welfare of consumers.

#### Pressure on Local Health Authorities

Local health authorities who are normally under considerable pressure from business interests should be permitted to entertain no doubts regarding the active interest of consumers in the sanitary conditions of markets, in the elimination of poison hazards due to the spray residues of insecticides, and in definite and accurate public information concerning the identity of products and producers or distributors found to be responsible for the poisoning of consumers.

#### A Consumers' Legal Defense Association

Throughout the country there are lawyers who, if encouraged by local groups of consumers, would welcome the opportunity to perform the unique public service of giving legal advice and service for the protection of consumers' interests. Consumers

need a body of legal precedents to establish their rights in the market place. These precedents are to be established only by a series of legal decisions in favor of consumers in the courts.

#### Reporting Consumer Experiences

It is important that the varied experiences of consumers touching all of the matters which are discussed in these pages should be on file with some central agency. An effective consumers' movement must have a pragmatic basis. Out of the experiences of thousands of consumers come more adequate formulations of a program. Consumers' Research has for a number of years been the recipient of many who have had first-hand experiences with merchandise and merchandising practices which have gone a long way in building up the effectiveness of the organization. No clipping bureau in America could have provided Consumers' Research with even a small fraction of the valuable material that has come into its hands from alert consumers scattered throughout the United States.

#### Withdrawal of Patronage

Patronage is a weapon in the hands of consumers which no business concern, however powerful, can successfully resist. Whenever applied on a large scale, it is almost instantly successful in achieving its ends. So far, the withdrawal of patronage has been directed chiefly toward reductions

in prices. There is no reason why, when large numbers of consumers become quality conscious, it should not be directed against the more subtle attacks upon the interests of consumers.

#### Department of the Consumer

An enabling act for the establishment of a Federal Department of the Consumer has been carefully drawn by Oscar S. Cox, Assistant Corporation Counsel of the City of New York and member of the New York County Lawyers' Association. The proposed act represents the results of years of study on the part of its author, and it is also a translation of the pioneering work of Consumers' Research into the legal framework of a statute. It is not intended as the final word on the subject. It is rather a concrete starting point for legislation in a field of growing importance. Its full text may be obtained from Consumers'

Research for the price of ten cents. It should provide consumers with important educational material for the study of the relationship of government to the needs and interests of consumers.

It is not expected that setting up one more government bureau or department is the final and complete answer to a problem which has been centuries in the making. Neither is it to be expected that consumers will, with one hop-skip-and-jump, land in a Utopia of their imaginings. Consumers will do well, however, to support the establishment of a Department of the Consumer as an effective starting point for a reorientation of government activity to the welfare of 125,-000,000 consumers.

This bare outline of consumers' tactics will be filled in with much detail when and as the idea of refashioning our economic life around the interests of consumers becomes prevalent.

T would seem wise to call a halt to the wholesale advocacy of cod-liver oil, "vitamin" D, or various forms of irradiated milk. It should never be necessary even to anticipate the occurrence of rickets if proper food and environment are to be got, and certainly from the prophy-

lactic point of view it would be far more rational to point out the dangers of a rachitogenetic diet and environment than to use as a prophylactic a

drug such as irradiated ergosterol, even though it be curative as regards rickets. Wise Words
on
Cod-liver
Oil

CONSUMERS CAN WIN

wise to initiate or impose a system of prophylaxis depending upon drugs in infancy, childhood, or other age, or advocate any medicine whether it be for the teeth, bones, brain, or anything else. The routine advocate of drugs in child

vocacy of drugs in child welfare centres is a most retrograde step. Surely it might by this time be realized that hygiene and public health is, or should be,

based on biological principles and not on preventive medicines.

J. Sim Wallace of King's College Hospital, London, in Oral Hygiene

#### ENAMELS AND VARNISH

Enamels

THE important characteristics of a good interior enamel are high "hiding power" (ability to cover or conceal a previous color or markings of the coating or surface underneath) and good gloss.

#### White

#### RECOMMENDED

Barrelled Sunlight Interior Gloss White (U.S. Gutta Percha Paint Co.; sold on the Pacific Coast by W. P. Fuller & Co.) Du-Lite Gloss (E. I. du Pont de

Nemours & Co.)

Snow White Enamel (Sherwin

Williams Co.)

SW Save-Lite Interior Gloss White (Sherwin Williams Co.) Also sold in tints. A satisfactory enamel for masonry walls in shops, factories, and office buildings.

Valspar (Valentine & Co.) Vitralite (Pratt & Lambert,

Inc.)

#### Colored

#### RECOMMENDED

Enameloid (Sherwin Williams Co.)

Interior Gloss (E. I. du Pont de Nemours & Co.)

Vitralite (Pratt & Lambert,

Inc.)

SW. Semi-Lustre Interior Wall Enamel (Sherwin Williams Co.) A durable and pleasing washable finish for walls and trim where a medium gloss is desired.

Fullerglo Interior Wall Enamel

(W. P. Fuller & Co.) A good enamel but did not dry fast enough.

Varnish

In general it is best to buy varnish that is offered specifically for one class of service, and use it only for that purpose. Buy a floor varnish where the surface is subjected to rubbing or mechanical wear, an interior varnish for wood trim, and a cabinet-finishing varnish for furniture or a rubbing varnish if the finish is to be rubbed down. For outside use, insist on true spar (water-resistant) varnish; no other is suitable. So-called "allpurpose" varnishes are unsatisfactory compromises of needed qualities for the sake of convenience and more persuasive advertising. Though sold for all uses, they are not especially good for any one use.

Cheap varnishes use rosin instead of the more expensive hard elastic resins. They give shiny, brittle films with very poor lasting qualities on exposure. When used on furniture they soften in warm weather and retain the impression of whatever fabric may come in

contact with them.

#### Exterior Varnishes

RECOMMENDED Rexpar (Sherwin Williams Co.) Navalite (E. I. du Pont de Nemours & Co.)

Aquaspar (Devoe & Raynolds) "61" Quick Drying Spar Varnish (Pratt & Lambert, Inc.) Interior Varnishes

RECOMMENDED

Valspar (Valentine & Co.)

Marnot (Sherwin Williams Co.) "61" Varnish (Pratt & Lambert,

Inc.)

Supremis (E. I. du Pont de Nemours & Co.)

Kyanize (Boston Varnish Co.)

Floor Seal (Sherwin Williams Co.) A good quality varnish, but showed poor alkali resistance. Devoe Floor Seal, C-2169 (Devoe & Reynolds) A good quality varnish, but showed poor alkali resistance.

Devoe Pale Interior Four Hour Varnish (Devoe & Reynolds)

Devoe Marble Floor Varnish (Devoe & Reynolds)

Lion Brand Brown's Four Hour Floor Varnish (St. Paul White Lead & Oil Co.)

Minnesota Walkon Floor Varnish (Minnesota Linseed Oil Paint Co.)

#### Funny Remarks of the Month

What Ethics! In business, advertising has tended to bring competition into the open, because by its very nature advertising itself is open. Its favorable influence on business ethics has been marked.

- Advertising Federation of America

Wash up for your own funeral!

These soaps [Naphthenates] are used by explorers in waterless deserts just before dying of thirst so that their bodies may be found in a nice clean condition.

- Chemistry and Industry

Crime has its silver lining

If you are robbed, make the most of the resulting publicity. After notifying the police and your insurance company, call your newspaper to send a photographer and a reporter. . . .

The business resulting from the publicity following a robbery may be worth more than your loss, but insurance actually pays your loss.

- Radio Retailing

Serving the consumer,
New Deal style

Our members are conscious of their responsibility to the consumer and through a program of self regulation within the industry will continue to fight for higher prices.

- Frank A. Blair in Drug Trade News

Again the obliging consumer
ginger ale . . . is that it makes the public price-minded and
spoils the market for everybody . . I also think that the
dealer would rather see it sell for 15c than for 10c. Surely the consumer would
have no objection to paying 15c for it.

- Roy Wood, NuGrape Bottling Company, in National Carbonator and Bottler

#### THE FOOD BUDGET

EREALS are relatively inexpensive and their products will, for economic reasons, usually supply the bulk of the body's energy. Grade B milk in some places can be as safely used as Grade A if it is necessary to cut costs, although, for others than babies, the use of milk should (and can safely) be drastically reduced or cut out altogether (with corresponding changes in other food selections) with a considerable saving, and in some cases to one's marked digestive advantage. The cheaper cuts of meat are just as nutritious as most of the choice ones; some of the parts of meat animals avoided by Americans but prized by nationalities having a tradition of good, unified, and economical cookery, are much more valuable nutritionally than the muscle meat and fat which form almost the whole of the American meat dietary. Margarine should not be used instead of butter, unless the butter vitamins (A and D) are certainly available in abundance in other natural forms (not, for example, as cod-liver oil, but in food). Cheaper oils and fats can be used (lard or other fats rendered from parts of meat purchased for consumption are preferable usually to prepared commercial cooking fats) and careful selection can be made of vegetables and fruits according to season, using some canned foods when necessary and cheaper, but never as a considerable proportion of the menu unless unavoidable. The United States Department of Agriculture has lately taken an interest in low-cost diets and can furnish information on request, much of which is valuable and much quite misleading. For example, the United States Department Agriculture overemphasizes use of cereals, potatoes, raw foods, green leafy vegetables, and especially milk. The latter two are fondly termed "protective foods." Neither, or course, would be called for in a diet (adult) which had not been debased, demineralized, devitaminized, bleached, adulterated, synthesized, and made up of imitations of natural and genuine foodstuffs by commercial processing techniques designed to increase profits and especially to cheapen distribution, and to improve "durability" or lasting qualities. Such increase of profits and pervasive, subtle, and gross deterioration of the food supply affect everyone, but are a special menace in their effect upon the unemployed and the city and country poor, who cannot afford, and are not granted by relief administrators, the expensive meats, vegetables, and fruits that would make such a diet at least possible without the gravest risks to health. State experiment stations and universities can give information on lowcost dietaries. Much harm has been done, however, by information from such sources and other professional dietitians, invariably underemphasizing the desirability of fresh meat, eggs, and fresh cooked fruits and vegetables, and correspondingly increasing to a dangerous degree the use of low-grade fuel foods, such as cereals, especially bakers' bread, dried peas and beans; smoked, dried, canned, and salted meat and fish; factory-made lard, cottonseed fats, and other undesirable cheap fats; turnips, dried fruits, chemically "ripened" oranges, bananas, tomatoes, and other fruits and foodstuffs that should (and can safely) be used only in limited amounts.

Industrial buyers do not need ballyhoo!

INDUSTRIAL buyers, normally charged with the responsibility of distributing some 35 billion dollars annually in exchange for raw

and semi-finished materials, factory and shop supplies, require no elaborate ballyhoo and spectacular appeals to arouse the latent desire to buy. That desire is inherent in the very day-to-day requirements of their firm.

The thousand and one ingenious tricks and devices of general publicity, so far as they are designed primarily or exclusively to attract attention, are largely wasted on such an audience—the blinking lights, the garish colors, the screaming headlines, the pictorial presentation of comely femininity that is apparently accepted as the sure-fire motif for introducing every conceivable product or service offered to mankind.

-Stuart F. Heinritz in The Executive Purchaser

Every merchant knows that retail advertising is replete with exaggerated and

Consumer buyers don't either!

extravagant statements and unfair "under-selling" claims. Yet retailers have succeeded in stamping out misleading advertising to a very small extent. In many small cities, the situation has become one of ascertaining who can "shout the loudest!"

-Benjamin H. Namm in Advertising & Selling

#### THE RESALE PRICE MAINTENANCE DECISION

Court upholding the resale price maintenance laws of California and Illinois appeared at first reading to be very bad news for consumers. The laws upheld by the court, in brief, permit the manufacturer of trade-marked articles to set the minimum price at which his products must be sold to the consumer. Anyone caught selling the particular article below this minimum is subject to severe penalties. The validation of such laws will tend unfailingly to increase the present trend toward business monopoly and to prevent effective competition by retailers and wholesalers, reserving, in effect, the active practice of price competition to manufacturers—except in so far as powerful retail interests may develop their own brands and trademarks, and transfer their promotion activities from the manufacturers' brands to their own.

The acts upheld by the court were aimed primarily at chain stores which buy in huge quantities and therefore can afford to sell at much lower prices than the small independent merchant. These enactments, nevertheless, may prove to be a boomerang, since of all distributors the chains and large department stores are in the best possible position to sell and effectively promote a profusion of private brands on which cut prices can still be employed with telling competitive effect.

The attraction for the small retailer in the passage of these so-called fair trade acts was that such laws would prevent the use of loss-leaders (nationally advertised articles sold below their effective cost price) as bait to bring customers into a particular store. The loss-leader development, however, appears to be one of diminishing importance. Consumers are becoming sufficiently discerning to shop from store to store for loss-leaders, taking away from the retailer the very advantage which the offering of the reduced-price article was supposed to bring. The enactments now approved merely require a shift of ground to different brands

and a slightly modified technique of advertising, building up the store's prestige, its laboratory, its exceptional purchasing power, and the like.

The effective way in which consumers can oppose these monopolistic Fair Trade Laws in states in which they are in effect is to purchase, wherever possible, private brands in preference to nationally-advertised brands the manufacturers of which require resale price maintenance of their dealers. Insist that the private brands carry grade labels and be made according to federal or other recognized specifications wherever such are available. The A and P, for example, now puts out under its own brand names canned goods which carry the official A, B, or C grade mark of the United States Department of Agriculture.

Urge drug chains to list the ingredients of their own private brand products on the label and indicate whether or not the product or its ingredients conforms to the standards of the United States Pharmacopæia.

Consumers' Research will make a special effort in forth-coming tests to select important private brands of the various national chains as it has frequently done in the past, especially with Sears, Roebuck, Montgomery Ward, and leading drug and variety-chain brands. It will be necessary, however, for local groups to do their own testing, likewise, since obviously many private brands will be of local distribution. Get your high school science department, Department of Health Laboratory, state food and drug department, or Agricultural Extension Service to help you.

The Supreme Court's decision will have provided a distinct public service if it has the effect, which it should have, of forcing consumers to deal with their local problems through their local facilities and to bring the schools, the municipal and state governments into the field of testing and freely reporting upon goods for the benefit of their community of taxpayers.

#### NON-LEADED GASOLINES

THE average engine in cars now registered will run satisfactorily on a gasoline with an octane rating of 65, but because about 1.5 per cent of all the cars registered require a 70 octane fuel, the majority of consumers are taxed willy-nilly and made to pay at higher than normal prices for gasoline containing lead which is not essential to the efficient operation of the automobile and which is, in a number of ways, hazardous to the user and others upon the highway, and undesirable in its effects upon the engine. In 1935, it was estimated that 71 per cent of the total gasolines sold were of the leaded type, and the proportion is probably even greater now. The hazard of using a gasoline containing the poisonous tetraethyl lead should, however, not be minimized. Those who can use non-leaded fuels in their cars (and at the present time they will be decidedly in the majority) but who are unable to purchase nonleaded gasoline in their localities, should tell the service station attendants in their region of their wish to buy the non-leaded gasoline, and at the same time write to the principal marketers of non-leaded fuels in their region expressing their insistence upon the right to buy the safer and more economical non-leaded gasolines. Tetraethyl lead is added to the gasoline for the purpose of increasing its anti-knock value, that is, to minimize the knocking

tendency of the engine. Many people are under the impression that if their car has a high-compression ratio it must use fuel of high octane rating. This, however, is not necessarily true, as it depends to a large extent upon the design of the engine. As has been noted, there is no logic in permitting a few cars of extreme or improper design to impose a heavy burden upon the users of the large majority of the cars that will work quite well enough with unleaded fuels.

Carbon deposits also will increase the tendency to knock. In such cases, decarbonization, not the use of a fuel with a higher octane number, should be the remedy. We wish to repeat, for the information of consumers who will think that we have an unwarranted prejudice against ethylized fuels, that the education of consumers to believe that only fuels of high octane number can be used satisfactorily in the engines of their cars is misinformation and miseducation. On account of the misleading information which they have been given, consumers are likely to conclude, as soon as they notice a slight knock or "ping" with the fuel they are using, that the gasoline is not a proper one for their cars. When an engine is knocking, the maximum horsepower is being produced. This knock occurs when, and such occasions should be exceptional, the motor is slowed down on a hard pull

while the throttle is almost fully opened. The best information available indicates that only when such knocking is considerable, and under severe and exceptional circumstances, there be any danger of harm to the engine. If an engine does not have a slight knock when pulling hard under such conditions, it can be concluded that the spark adjustment is not correct, i.e., is not far enough advanced, and that the maximum efficiency and economy is not being obtained with the fuel used. It is advisable to select the type of fuel best suited for your car, have the proper spark adjustment made, and either continue to use that fuel exclusively (unless for some reason it decreases in quality) or other suitable fuels of approximately the same octane number. Actually, there is little difference (at most 1 or 2 per cent) in the resultant power obtained by different fuels with different antiknock qualities, providing the proper spark adjustment is made in each case, and the difference is only a small fraction of the difference in cost between the better, non-leaded fuels and the premium, leaded fuels. That is, it pays to use the non-leaded fuels.

Practically all of the cars on the road today are performing from 10 to 15 per cent below the maximum obtainable mileage on fuel. In the spring and summer, a much leaner mixture can be used than in the winter months; hence, to improve gasoline mile-

age, carburetors should be adjusted to the leanest possible mixture, tappets set to their correct clearance, and spark plug gaps correctly adjusted. If your use of your car calls for a large gasoline consumption, and your carburetor is not one which provides for proper adjustments, it may pay you to change to a carburetor of good design having a full complement of adjustments, such as used to be provided in

earlier years.

In the following listings, the regions where the samples were purchased are indicated in parentheses immediately after the brand name: (E)-sample bought in the East; (S)-sample bought in the South; (PC) -sample bought on the Pacific Coast. The brands listed are mostly those designated as thirdor second-grade, the secondgrade being commonly known as the "regular" grade of gasoline. No first-grade, premium gasolines were included in this test; the foregoing discussion makes it plain that considering their extra price, use of premium gasolines is not warranted. The prices given were the actual retail prices per gallon and include state and federal taxes imposed in the particular sections in which the samples were purchased. No attempt has been made to give price ratings, as the prices paid by the consumer in the different states vary according to the taxes in force and to the state of competition, which has distinct regional characteristics.

The ratings of the gasolines are based on the following characteristics: ease of starting, acceleration, tendency to vapor lock, gum formation, corrosion, crankcase oil dilution, and antiknock. Consumers' Research does not rate any product Recommended whose use presents unnecessary hazards to the consumer.

#### RECOMMENDED

Blue Sunoco Regular (E) (Sun Oil Co., 1608 Walnut St., Philadelphia). Antiknock quality found superior, specially suited for cars requiring high antiknock fuel. Better than average in ease of starting and acceleration. Tendency to vapor lock somewhat greater than average and to crankcase dilution about average.

Calpet Third-Grade (PC) (The Texas Co., 929 S. Broadway, Los Angeles). Antiknock quality satisfactory. About average in ease of starting and acceleration. Tendency to vapor lock about average and to crankcase dilution somewhat greater than average. Name changed to *Indian* in California as of June, '36.

Cities Service Third-Grade (E) (Crew Levick Co., 400 N. Broad St., Philadelphia). Antiknock quality fully satisfactory. About average in ease of starting and acceleration. Tendency to vapor lock less than average and to crankcase dilution about average.

Flight Third-Grade (PC) (Standard Oil Co., 225 Bush

St., San Francisco). Antiknock quality satisfactory. About average in ease of starting and acceleration. Tendency to vapor lock about average, to crankcase dilution somewhat greater than average.

Gulf Coast Ether Third-Grade (S) (Gulf Coast Oil Co., Marrero, La.). Antiknock quality satisfactory. About average in ease of starting. Better than average in acceleration. Tendency to vapor lock and to crankcase dilution less than average.

Salcedo Anti-Knock Third-Grade (S) (Salcedo Distributing Co., Inc., New Orleans, La.) Antiknock quality satisfactory. Below average in ease of starting. Better than average in acceleration. Tendency to vapor lock and to crankcase dilution less than average.

Sinclair Third-Grade (E) (Sinclair Refining Co., 45 Nassau St., New York City). Antiknock quality somewhat low. About average in ease of starting. Better than average in acceleration. Tendency to vapor lock about average and to crankcase dilution less than average.

U.S. Motor Regular (S) (Standard Oil Co. of Louisiana, 2134 St. Charles Ave., New Orleans, La.). Antiknock quality somewhat low. Below average in ease of starting. Better than average in acceleration. Tendency to vapor lock lowest, and to crankcase dilution less than average.

### Consumergrams

TRADE journals report a shortage of antifreeze solutions which contain glycerin. The booming munitions industry is taking enormous quantities of this low-freezing-point fluid which would otherwise go into automobile radiators this winter. In all fairness, consumers should be educated up to this sacrifice by having somebody tell them about the glories of bombs bursting in air and radiators bursting at the roadside.

Heard on the radio: "The elephant is the most powerful of all beasts. If Adam were naming the animals today, he would call the elephant 'Essolene.'" Which sets us to wondering—quite apart from the Essolene ad—which of the insect pests Adam would call radio advertising.

The distinction of Motorists' Enemy No. 1 should go to the automobile engineer who invented fenders which make it practically impossible to put chains on tires without ruining our dispositions, to say nothing of giving us bruised knuckles and mud in our eyes.

A manual for salesmen advises that a demonstration talk should sound like a "friendly conversation in which neither party is self-conscious." Elsewhere in the same manual, we read: "The object is to keep her saying yes and agreeing with you." The perfect vocabulary for a consumer who wishes to engage in "friendly conversation" with a salesman can be acquired in less than ten easy lessons. Our own ability to engage in "friendly conversation" includes perfect mastery of many languages: Yes; Oui; Ja; Da; Si; Saya; and Uh-huh. But we are also erudite enough to engage in unfriendly conversation: No; Non; Nein; Niet; Tidak; and Un-unn.

71

O DOR and color to match the individual astral personality are provided in a soap now on the market. It is called "Astrological" soap, and a horoscope is included with each box of four cakes. Price per box, \$1.00.

DRY milk fish food is offered in eight colors for aquarium fish fanciers who wish to match the color of their fish with the piscatorial diet.

Doggie's Christmas stocking was not forgotten by one of the largest toy distributors during the late Yuletide. This enterprising house announced, among other things, a rubber chop, a mewing cat's head and a chocolate flavored rubber bone.

In this button, knob and doo-dad age, you may own an electric range with a built-in radio. Now you can

# **ODDITIES IN**

get red-hot jazz right off your own cooking stove.

Toiler seats with built-in scales and book-racks are among the contributions of merchandising research to a time-saving civilization. There are also toilet paper rollers which will play your favorite sonata when paper is pulled.

I NVETERATE snorers may now equip, or have equipped for them by their harassed mates, their jaws with a device which holds the mouth shut during slumber. It isn't a zipper either.

ELECTRICITY-CHARGED window and door screens will destroy flies and mosquitoes, but are harmless to humans and house pets—at least unless something goes awry.

Suffering from horrendous thumb fatigue is no longer required of small boys who shoot marbles. A mechanical marble shooter which ejects different sized marbles at varying speeds is offered as the cure for this ancient malady.

ILLUMINATION problems of the bedroom reader-sleeper are now solved by "a new bed lamp which has two bulbs so divided under the shade that they give light to both bed occupants, or light to one and darkness to the other."

New floor lamp with timing device which turns the light on (or off) automatically at any desired hour is available for those who come home late and can predict the precise hour when the party will be over.

1937

CALIFORNIA is the production home of a new kind of beer made from prunes.

OUTFITTED with a pencil which has a compartment for aspirin tablets, one may be prepared for all the headaches which go with the aspirin age—and aspirin ads on the radio.

Manganese capsules—30 for \$1.00—are advertised to contain "the chemical of poise, strong nerves and good judgment, which coordinates thoughts, gives elasticity and quick recuperative ability."

Men may now have a safety razor equipped with an electric light; and women may possess a combination flashlight and lipstick.

# COMMODITIES

ORANGES may be enjoyed by means of a "sucker" recently patented by a literal minded inventor. The gadget

is jammed into citrus fruits, and the juice of the fruit is drained with the combined pressure of massaging and sucking.

D—the most widely publicized of the vitamins—has now been added to toilet soaps, paper napkins, hot dogs, candies, and chewing gum.

INCURABLE gadgeteers may have their automobiles equipped with amazing lighters which hand the driver lighted cigarettes.

TYPEWRITERS with hide-aways for chewing gum, now available, should hold a captivating sales appeal for economizing stenographers.

INCUBATOR for chickens, electrically operated, is among the achievements of this mass-production civilization. The machine is said to have a capacity of handling nearly 70,000 eggs at a "setting."

ELECTRIC worm-getters are among the jiggers of mechanical progress which promise release from toil for chickens and fishermen. An electric worm-getter consists of two metal rods (electrodes) with attachments for electric current, which are stuck in the ground a few feet apart with the result that an electrified zone is set up in the earth between the rods, thereby causing the shocked worms in the affected area to hurry to the surface. One death from the use of this worm-getter has been reported.

SOFT-AS-SILK glass pajamas which are said to be as strong as linen have been produced. We are not able to report on their transparency.

#### GULLIBLE'S TRAVELS

January 28, 1937

Snocum, Coconut Grove, Pacificania.

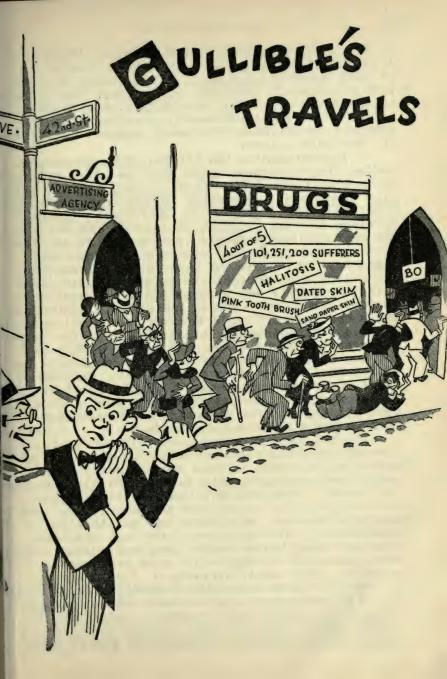
Dear Snocum:

Gradually I am coming to understand Americans and their civilization. Some of my very first impressions have turned out to be quite deceptive. At first I thought they were a very healthy people, but thanks to their radio, their magazines, and their newspapers (which swirl about one's feet everywhere, in the parks, in taxis, in street cars and subway cars) I have made an early discovery of my mistake, and I now see that Americans are generally in a sad plight. It is a fine thing for international understanding that the newspapers, magazines, and radio here make it so easy for a foreigner to get a quick close-up of the deplorable health situation in America.

You can understand my early erroneous impression about the health of Americans when you recall that the American Olympic team established so many new world records in athletics. also appear to be the major interest of students in colleges and universities. A winning football team always lends more distinction to a university than any eleven of the world's most noted scientists could possibly confer upon it. Practically all the large political meetings must be held in arenas which were built for athletic purposes, since athletic fields are the only sufficiently large meeting places where a great meeting of any kind can be held. All of these things show the overshadowing preeminence of athletics in American life, and the foreign observer is easily deceived into believing that this means that Americans are a healthy people.

But here is a single startling fact about the diseases, ailments, maladies, and physical disorders which plague Americans. It throws light on the whole dark underlying situation. In 1934,

the year of the latest Census Bureau estimate



of the population of the United States, there were 101,251,200 persons suffering from a dreaded ailment known as pyorrhea. It is stated on the best of authority that four out of every five persons in the whole population are afflicted with this ailment. A simple mathematical calculation thus suffices to determine the exact number of sufferers in the whole country.

In addition to the 101,251,200 persons who suffer from pyorrhea, there must be other millions who are afflicted with halitosis, acid mouth, film, pink toothbrush, detective tongue, morning mouth, sulphide breath, gingivitis, and coated tongue. Warnings against these horripilating disorders of the oral cavity are posted everywhere - in stations, on trains, billboards, in every newspaper and magazine. The radio is especially vigilant in its attempts to protect the people against these maladies; hardly any program but deals most intimately with one's mouth, one's breath, one's nose, one's "body skin," one's bowels. Not only is health involved, but social relationships are also deeply affected. A young woman who is the victim of any one of these oral disorders is certain to be condemned to live alone and like it. On the other hand, the press and radio make it clear that whenever a young man finds a girl who is free from all these awful ailments, he straightway goes to buy a wedding ring for her.

But I have only begun to tell you of the diseases that are forever tracking down these unfortunate people. There is a general dread among the population akin to that which our people in Coconut Grove feel for the man-eating tiger, the leopard, the viper, and the shark. In this country, however, wild life has practically disappeared. The dangers of the old American frontier, with its mountain lions and grizzly bears, have given way to these far more horrendous maladies, which skulk everywhere, feared but unseen. In addition to those bodily terrors which I have already named, I have learned about athlete's foot, B. O., office hips, asthenia, acid skin, coffee nerves, armhole odor, clogged pores, dated skin, domestic hands, conversation lines, scurf,

psoriasis, crepey throat, fading skin, foot fag, cosmetic skin, flour face, dirty linen skin, Monday blues, housework hands, ironing board back, night time nerves, P. M. fatigue, washday jitters, yellow stain, lipstick parching, and pocketbook panic. And the end is not yet in sight, as American scientists are continually discovering more.

I must tell you about a trick which that aggravating creature, Impervious, played on me when we first arrived here. Everywhere we saw attacks upon B.O. Impervious, always disrespectful, tried to make me think it was a part of the Republican campaign against the New Deal agencies. It is true that the New Deal has adopted the practice of designating its bureaus by the initial letters of their names. When I get back to Coconut Grove, I have some great plans for setting up government bureaus. The Americans have only twenty-six letters in their alphabet, and this puts a limit to the number of the bureaus which they can set up. With the thirty-two letters in our alphabet, we can organize a series of government agencies that will put Americans to shame.

I am told that there was a time when it was the special function of American doctors to discover and name diseases, but the doctors lagged so far behind in the march of science that this was turned over to advertising agencies. It is remarkable testimony to the advanced position which advertising men hold in the field of science as well as in the field of public health that practically every one of the diseases which I have mentioned was discovered in an advertising agency. Science is so instinctive with advertising men that they need no instruments or laboratories for their scientific discoveries. A big dictionary is all the equipment which they require.

While I do not take back a word of what I said about the horripilating character of American civilization, I must point out that the situation is not altogether gloomy. For it is upon the great scientific discoveries of the advertising

agencies that many important American industries have been erected. And this brings us once more to that amazing phenomenon which Americans call "prosperity." To discover a disease that will make 101,251,200 persons rush for the nearest drug store means that thousands of additional drug stores must be built to accommodate the crowds, and factories in turn must become beehives of activity to supply the drug stores. Employment is provided for hundreds of thousands, business turnover is accelerated (nothing makes Americans more happy than turnover, of anything, even of antiques and government bureaus), and thus American civilization demonstrates its unparalleled cleverness for turning the tragedy of its ailing millions into glorious achievement.

Impervious was looking over my shoulder just now, and when he read what I have told you he burst into a fit of laughter and repeated over and over his ignorant and terribly annoying word, woosoppy. But when I told him what I am going to do when I get back to Coconut Grove, he was stunned beyond comment. Here is my plan: I am sure that we have been overlooking scores and scores of ailments, diseases, and maladies upon each one of which we could erect a substantial business enterprise. Think what we could do with palmtree hands, sanditis-between-the-toes, junglephobia, typhoon nerves, deep-sea odor, siesta hips, vitaminosis-D skin, and pearl divers' mouth.

Yours for the glorious future of Coconut Grove diseases!

Gullible



## If you wish to know more about the products discussed in CONSUMERS'

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DIGEST

A yearly subscription will bring you ten monthly Bulletins. In addition, you will be sent a free copy of the Annual Cumulative Bulletin for September, 1936. This Bulletin summarizes and brings up to date, for the most part, previous reports by Consumers' Research on many of the commodities which you buy. It is a handbook of buying for consumers in such fields as food, drugs, cosmetics, toilet soap, cameras, mechanical refrigerators and other household appliances, textiles, clothing, and radio sets. Products are listed by brand name as Recommended, Intermediate, or Not Recommended. Here's what some of our subscribers have said about Consumers' Research Bulletins:

"With the help of your service, I have been transformed from almost anybody's chump to a relatively smart buyer."—A Secretary.

"Consumers' Research is scarcely in any need of testimonials, yet the writer would like to mention that Consumers' Research has seemed to him to improve greatly in the past several years, both in scope and character. And Consumers' Research continues to save this subscriber many times the membership price in a year. For example, the following purchases were based on CR findings: radio, electrical refrigerator, washing machine, and many smaller items—water softener, insecticide, foods of all sorts. Incidentally, I am proud to have introduced Consumers' Research to many friends, at least a half dozen of whom have become subscribers."—A Government Employee.

"Being in the market for an electrical refrigerator brought, through a friend, the name and nature of your organization to my attention. The need for such an institution in a country filled with ballyhoo and gullibility is great. I enclose filled out subscription form and check."—A Statistician.

"I am enthusiastic over the work the CR is doing and feel that we should all help in calling your attention to brands which we feel give consumer satisfaction."—A Teacher.

"I am a supporter of your laudable organization only a few months, but I can honestly say that it is the most worthy thing into which I have ever put money. I want to congratulate you on the work you have already done; and I hope you will be able to continue indefinitely. The public knows too little what it is eating, buying and paying for."—A Musician.

"Before closing I should like to commend you for the fine service you have been rendering the helpless public. I have read your '100,000,000 Guinea Pigs' and 'Skin Deep,' also the original one 'Your Money's Worth,' and only hope you keep up the good work. I think it has really had some effect on the manufacturers and advertisers, and several leading brands of toothpaste, for example, have come out in new and changed form after the first named book ripped them wide open. If the public can only be aroused to the dangers of blindly accepting what the ads say as truth, and to do something for their own protection, I am sure your cause will be half won. Good luck to you!"—A Housewife.

You, too, can benefit by the advice found in Consumers' Research *Bulletins* by simply signing the application blank below and returning it with \$3 to Consumers' Research, Inc., Washington, N. J.

CONSUMERS' RESEARCH, INC. Washington, N. J.
I am enclosing \$3.00 (foreign \$3.50) for one year's subscription to the Consumers' Research Bulletin (which includes Annual Cumulative Bulletin Number, and Monthly Bulletin Numbers—except during July and August). It is understood that my handling any CR material which is marked "Analyses of commodities, products, or merchandise appearing in this issue are for the sole information of subscribers" will be in accordance with that direction.  Signature.
Longhand
Permanent addressCity State
Profession or Business
Firm or Employer

#### Cash for Consumers' Digest Contributions

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Consumers' Digest invites its readers to submit contributions which are of general interest to consumers along the following lines:

(1) Consumergrams. As briefly and succinctly as possible, state some problem of the consumer as you have experienced or observed it. (See page 74 of the January issue of Consumers' Digest or page

71 of this issue.)

(2) Newspaper Clippings. From time to time your local newspaper will run some item of general interest to consumers which should be given wider publicity—such as a fatality resulting from the use of a hazardous product, or an account of a unique method devised by consumers for their protection. (In submitting a clipping, do not fail to note the name and address of the publication from which it was taken, together with the date and page number of the issue.)

(3) Quotations. From the earliest periods of recorded human history, writers have dealt—even though in a casual manner—with the problems of the consumer. In your reading, you may encounter a pungent statement of some aspect of consumers' problems. (The most meticulous accuracy in copying a quotation is essential. The full name of the author of the quotation together with the name, year, and page of his volume must accompany the quotation.)

year, and page of his volume must accompany the quotation.)

Consumers' Digest will pay \$1 in cash for each accepted contribu-

tion along the foregoing lines.

The editors cannot undertake to return contributions which are not accepted. Neither can they enter into correspondence concerning

the acceptability of a contribution.

In submitting a contribution, it is not necessary for you to "tear off a coupon or carton top" to accompany it. Employees of Consumers' Research and members of their families are not eligible to submit contributions.

The editors of Consumers' Digest are the sole and final judges of

the acceptability of a contribution.

#### Bookshelf for Consumers

# CONSUMERS

For a dear bargain is always annoying, particularly on this account, that it is a reflection on the judgment of the buyer.

-Pliny the Younger



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#### CONSUMERS' DIGEST

Published monthly at 80 Lafayette St., New York, N. Y.

#### CONSUMERS' RESEARCH, INC.

Editorial Office: Washington, N. J.

25c a copy

\$3 a year

The American News Company, distributors

F. J. SCHLINK Editor-in-Chief I. B. MATTHEWS

M. C. PHILLIPS Managing Editor Associate Editor

Technical Editors: R. JOYCE and E. W. CHENEY

Address all communications to

Consumers' Digest. 80 Lafavette Street, New York, N. Y. or to the editorial office, Washington, N. J.

Entered as second-class matter at the Post Office at New York, N. Y., under Act of March 3, 1879.

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The material in this magazine is mainly based upon data in the files and from the Bulletins of Consumers' Research, Inc.

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¶ Consumers' Digest presents only Recommended products in its listings. The absence of brands from the Recommended list does not necessarily imply a non-recommendation.

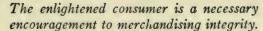
Those who desire a more complete discussion of technical details of methods of test, together with the Intermediate and Not-Recommended listings of products as well as those Recommended, should subscribe to Consumers' Research Bulletins (issued monthly except during July and August). The annual subscription price of the Bulletins is \$3 which includes the September Bulletin—an annual cumulative handbook of buying of more than 200 pages.

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¶ Consumers' Research is supported entirely by consumers and devoted to their interests. Samples of goods tested are, with few exceptions, bought on the open market just as any consumer would buy them. No money or compensation of any kind is accepted from manufacturers, salesmen, or advertising agents for listing their products in the Bulletins or in the Digest, nor are the results of tests submitted to or discussed with manufacturers before they are issued. ¶ Teachers and groups interested in using Consumers' Digest in class or discussion projects should write for special rates on lots of ten or more copies.



## CONSUMERS' DIGEST





#### BEWARE OF POISONOUS EASTER EGG DYES

Every Year There Are Some Casualties From This Source

be dyed for the pleasure of children during the coming Easter season. The utmost precaution is necessary to avoid the grave risks of poisoning from dyes. Every year following Easter, casualties from poisoning are reported in the newspapers.

To anyone who has even a superficial knowledge of lead poisoning, the hazards involved in children's working with lead-content dyes are obvious. There is the possibility of their absorbing some of the lead through abrasions on their hands, and the still greater danger of ingesting lead deposited on and in the dyed eggs. There are Easter egg dyes on the market claiming to be pure vegetable dyes. However, the safest course would be

to allow children to dye eggs only with food colors which are shown on the package by a clear and unequivocal statement of the manufacturer, over his official signature, to have been certified by the Department of Agriculture.

Thousands of packages of poisonous Easter egg dyes have been seized by state and federal food and drug authorities. No dye having an odor characteristic of paints, lacquers, or varnishes should be used on Easter eggs or other food. (But other dyes may not have these odors, and still be poisonous.) Four out of twelve Easter egg dyes recently analyzed by a state chemist contained lead or arsenic, or both.

On reading a warning against poisonous Easter egg dyes pub-

lished by Consumers' Research, a reader wrote us as follows: "When reading your article on dyeing of Easter eggs, I thought a method used by my mother for years because of fear of poisonous dyes might be of assistance in a future recommendation. If some skins from red onions-or yellow ones-are put in the water while boiling, the eggs will come out a deep mahogany color. The color of the onions and amount of skins used will cause some variation in color. Only the dry outer husks are needed." We have found that these directions work well.

The following Easter egg dyes, of the type permitted by the Food and Drug Administration, are believed to be comparatively safe for use on the shells of eggs:

Chick-Chick Pure Food Easter Egg Colors (Fred Fear & Co., Brooklyn, N.Y.)

Easter Lily Pure Food Easter Egg Color (Fred Fear & Co.) Certified by U.S.D.A.

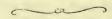
Fleck's Pure Food Egg Colors
(J. J. Fleck, Tiffin, Ohio)

Happy Bunny Easter Egg Colors (Hal Pern Mfg. Co., Brooklyn, N.Y.)

Paas Easter Egg Transfer-O-S (Paas Dye Co., Newark, N.J.)

Paas New Process Easter Egg Colors (Paas Dye Co.)

Peter Rabbit (Paas Dye Co.)
White Rabbit Pure Food Easter
Egg Color (White Rabbit Co.,
St. Louis)



#### Where Eating Is Good

Argentina is likewise a land for the gastronomic explorer. Its restaurants overflow with astonishing varieties of beef, mutton, pork and fowl. Its steaks are succulent and tender beyond description, the finest by far that this amateur enthusiast has encountered in thirty-odd countries. And the choicest and best of Argentine meats are served fresh killed or within forty-eight hours, thereby exploding the persistent myth that aged meats are best. A single meal at the Cabana in Buenos Aires should suffice to convince most North American patriots of a sorrowful truth; to wit, that really good meats are almost non-existent in the United States, and that our nation suffers from the curse of super-refrigeration.

For all our vast resources in cattle and hogs and means of communication, it seems likely that we are one of the greatest stale-meat-eating nations of modern times. The refrigerator and the popular fallacy that fresh meat is bad have combined to cheat us of one of the chief delights of the Argentine.

#### SELECTING GOOD NATIVE PLANTS

An Expert's Advice on Nurseries and Planting

ost states have Conservation Committees which issue lists of the native plants threatened with extinction. Such plants should remain unmolested. Other natives should be transplanted only when the new location can offer growing conditions similar to the plant's native habitat. These locations can be classified in the following general groups: dark shade, swamps, sunny exposures, open woods, and rocks. Only when one is reasonably sure that he has growing conditions favorable for native plants should he attempt to take them from the wild. Permission, of course, should be obtained first from the landowner.

Native plants are best moved when dormant. Ferns and small flowering types should be moved in early spring. It is usually advisable to take a ball of soil with the plants to assure that the roots do not dry out and to aid the plant in establishing itself in its new location; but this is unnecessary for deciduous plants when dormant. Trees and shrubs may be transplanted in spring or fall. Do not let the roots dry out. To assure success in transplanting, it is best not to take evergreens from rocky or dry places, and always to take a large ball of moist earth with the roots. If this earth is wrapped in burlap, drying out will be prevented. Evergreen trees transplanted in the fall must be watered frequently if they are to live through the winter. At the time of transplanting, deciduous shrubs should be cut back or pruned severely. Generally speaking, native plants taken from the wild are seldom as successfully transplanted as those purchased from nurseries which specialize in them (such as Gillett Fern and Flower Farm, Southwick, Mass., Aiken's Nursery, Putney, Vt.), and E. C. Robbins, Ashford, N. C.

#### Growing Grapes and Small Fruits Without Spraying

Persons with a relatively small area of land may if they wish produce an assortment of small fruits and grapes that will provide the family with an abundance of fresh fruit, and material for jellies, jams, juices, etc. With a proper selection of varieties, little or no spraying is necessary in the northern states to produce fairly satisfactory crops.

Small fruits grown in northern states, selected from the following list, require little or no spraying:

Strawberries (suitable varieties, Catskill, Dorsett, Fairfax, Howard [Premier]).

Raspberries, red (north of Mason and Dixon's line, Chief, Viking, Newburgh; south of Mason and Dixon's line, Chief, Latham, Ranere).

Raspberries, black (Bristol, Plum Farmer, Naples).

Raspberries, purple (Potomac, Sodus).

Currants (Red Lake, Perfection).

Gooseberries (Chautauqua, Poorman).

Blackberries (Eldorado).

Grapes (very early, Fredonia, Portland, Ontario; early, Worden, Brighton; late, Niagara, Delaware, Concord, Sheridan).

Certain late-keeping grapes may be held until Christmas in cool cellar storage. A selection of varieties for this purpose may be found in Circular 144 "Fruits for Roadside Markets" of the New York Experiment Station, Geneva, N. Y. Cultural instructions are available from the same source.

Gooseberry and currant bushes are "intermediate hosts" for the white pine blister rust fungus and should not be grown in the same locality with white pine trees. Red currants and gooseberries can be grown up to 1,000 feet and black currants up to 1,500 feet from white pines without endangering the trees. To be on the safe side, it is common practice for nursery firms to clear out gooseberries and currants for a distance of 1,500 to 2,000 feet from white pine plantings.

# Nursery Stock Quality

Select varieties suited to the climate, soil, location, and exposure. A good-sized, compact, fibrous root system, never allowed to dry from the time of digging to planting again, is the best guarantee that any plant will live. Fine tops are nothing if the roots are poor. Evergreens and other trees and shrubs difficult

to transplant must have a large ball of moist earth wrapped in burlap around their roots.

A young shade tree should have one leader, straight from ground to tip, an evenly balanced head with the lowest branches well above ground (five feet in a ten-foot tree), and no broken branches or breaks in the bark. A shrub should be bushy; avoid one consisting of two or three "leggy" shoots. Perennials should be young plants or strong divisions of blooming size, best not in bloom when moved, with roots in soil. Annuals should be young and stocky; if potted, the roots should not be woody from being pot-bound too long. (Knock them out of the pots and look at them.) All kinds of plants must be free from insects or disease. When sent by express or truck, they must be well packed to prevent drying or breaking.

The mere appearance of a plant does not tell whether its roots have been allowed to dry and then have been wet again, too late for recovery, or whether potted annuals were dried to death to make them bloom. The buyer's only protection from such common tricks is to buy from bona fide growers, and not from dealers, roadside stands, department or five- and ten-cent stores, or other chains. It is possible to get good plants from such places, but the consumer should understand that the risks are great and difficult to avoid. Visit the nursery; make sure the plants you wish are really grown there, not bought from some distant grower. Visit the packing sheds; see the kinds and condition of roots sold, and the packing methods. Tag the plants you wish and, if possible, wait to see them dug. Watch for blackheart, a blackening of the central "core" of the tree, which indicates winter injury, particularly in cherries and plums. If there is a question of winter injury, insist upon seeing the center of a sample, perhaps that of a small or otherwise unsalable tree in the same lot.

### Ornamental Grades

Nurserymen denote the grades of stock in various ways. The following are a few of the more frequently used terms and measures:

Tr. = transplanted; Tr. 3T = transplanted three times.

B & B = balled and burlapped.

S = seedling; C = cutting; D = division.

X = heavier grade stock than first class; XX = very heavy; XXX = very heavy, perfect specimens.

### Fruit Tree Grades

First-grade standard apples, pears, plums, cherries, peaches, and apricots should caliper 11/16 inch or over, two inches above the collar or bud. Cherries and apricots should be four feet or more in height; the other trees, five feet or more.

First-grade dwarf apples and pears should caliper 5% inch or more and the height should be stated. (See The Modern Nursery, by Laurie & Chadwick, for other grades.)

## Methods of Propagation and Handling

For certain plants, the methods of propagation and handling affect quality.

### RECOMMENDED

Low-budded Roses. Two years dormant, field grown.

Own-root Lilacs. Cost more, but are most likely to be long-lived and vigorous. Not usually offered.

Grafted Grapes. Superior fruit.

Grafted Wisteria. Will bloom if properly pruned.

Grown from Cuttings. Dwarf ageratum, verbena, and petunia varieties, etc., whose seed does not come true.

## QUALIFIED RECOMMENDATION

Low-grafted Roses (grafted well below ground).

Grafted Lilacs. Perfectly satisfactory if they have been forced to grow their own roots and the privet stock has already been killed or cut out. Few nurseries are sure to do this. Do not accept grafted lilacs still on privet roots, with the idea that deep planting can be depended on to force the growth of lilac roots, but watch your lilac dug and inspect the roots before buying. NOT RECOMMENDED

Potted Roses. Not suitable for outdoor planting, except for emergencies and late spring replacements. Roots crowded; plants must be taken up and roots spread properly in late fall. Own-root Roses. Never bloom really well. (Especially true of

the less hardy types such as hybrid teas, etc.)

Budded or Grafted Lilacs. The kind usually sold are short-lived.

If borers kill back the top, growth will not be renewed from the roots.

Own-root Wisteria. May never bloom.

Package Roses. Tops sometimes dipped in paraffin to prevent drying, roots packed in a fertilizer mixture. A method of disposing of surplus stock, a gamble for the buyer.

### Name Varieties: How to Get Them

The "true to name" racket is one of the worst offences of nurseries. Everything is guaranteed true to name, but few consumers know plants well enough to question horticultural varieties, so they pay rarity-prices for cheap material. Many plants do not bloom the first or even the second year. By the time one is proved to be wrongly named, it doesn't seem worth while to kick, if indeed one still remembers or can find out from records, where the plant came from. Anyone who wishes a particular named variety must take extraordinary precautions. Some of the named varieties, particularly among roses and phlox, have patent numbers which will be attached to the plant label. For example, the Amelia Earhart rose—Plant Patent No. 63. Nurseries that offer plants under such patented names can generally be relied upon to sell according to name. A specialist who grows a limited number of good varieties, carefully labeled in the field, and listed in his catalog, is also likely to be reliable. Next in reliability is the small general nursery specializing in certain plants, if the plants are carefully labeled and listed. A few kinds, e.g., phlox, iris, hybrid day lilies, and others, can be moved safely in bloom if they are cut back before digging, and are not left out of the ground for more than a day or so. They must be kept moist. Plants may be tagged when in bloom, but the nursery must be trusted to send those same plants later. In order to check identifications, plants may be examined in botanic gardens or arboretums or in plantings or agricultural colleges or experiment stations; the various flower societies (Rose, Iris, Peony, etc.) have official check lists with descriptions. If plants turn out to be wrongly named, prove it by submitting a spray with blossom and a copy of the original bill with the name of the variety, and demand your money back.

#### Sizes

Shrubs and Trees. In quick growing material (ordinary nursery stock) it is usually best to buy small sizes. However, one large specimen for an important position is often cheaper and more effective than three smaller plants to cover the same space. Do not plant too thickly; keep in mind the *final* size.

Peonies. A plant from a division of three to five eyes will make a finer plant in two or three years than will a larger clump.

Perennial Seedlings. These are sold cheap by some nurseries in early fall; if grown in a cold frame until late fall, they will be large enough to live through the winter frozen, with a slat frame over them.

## When to Buy

Collected Stock (native plants collected from the wild). Buy in spring from stock recently gathered.

Roses. Buy in very early spring for the North; in fall or

spring, farther south.

Lilies. Hybrid lilies: Buy bulbs in fall, started plants in spring. Lily species: Grow from seed if you wish to be reasonably sure of avoiding mosaic disease. Even then, do not grow them near old mosaic-infested stock.

### Where to Buy: A Few Nurseries

In states where nurseries must be licensed, as in Pennsylvania, a list of registered nurseries can be obtained from the State Department of Agriculture; in other states, county agents, Farm Bureau men, and the state agricultural experiment stations or agricultural colleges can refer you to reliable sources for definite kinds of plants.

### RECOMMENDED

It is preferable to buy stock at a nearby nursery (providing it offers satisfactory materials) rather than from a distant source. Time for shipment, impossibility of personal inspection, and necessarily slower adjustment in case of complaint are factors which may cause considerable annoyance when buying is done at a distance. Nurseries carrying fruit trees form too long a list, and in many cases are too little known outside of local areas to

permit ranking them here. Omission of a nursery does not, of course, mean that the firm is unreliable. The following list includes some of the better-known dealers in specialties:

D. M. Andrews, Boulder, Colo. Plants from the Central Rockies. Hugh B. Barclay, Narberth, Pa. Ground-cover specialist. Great variety, at lower than usual nursery prices.

Edward Breed, Clinton, Mass. Small, good nursery. Hybrid tea

roses tested for hardiness.

Canterbury Nurseries, Inc., Easton, Md. Box for hedges or specimens, cheap and good.

Cherry Hill Nurseries, West Newbury, Mass. Good, small, general nursery. Fine specimens. Peony specialists.

Conard-Pyle Co., West Grove, Pa. Rose growers.

Ferndale Nursery, Askolv, Minn. Good evergreens.

D. Hill Nursery Co., Dundee, Ill. Probably the best place in its territory for evergreens.

C. M. Hobbs & Son, Bridgeport, Ind. Trees and shrubs.

Henry Kohankie & Son, Painesville, Ohio. Trees and shrubs.

Monroe Nursery, Monroe, Mich. Good general nursery.

N. Y. State Fruit Testing Association, Geneva, N. Y. Particularly good for new fruit varieties.

Portland Wholesale & Retail Nursery Co., Portland, Ohio. Shade

trees.

Princeton Nurseries, Princeton, N.J. For well-shaped young trees.

Carl Purdy, Ukiah, Calif. West American bulbs, alpines, and perennials.

E. C. Robbins, Asheville, N. C. Collected azaleas, etc.

Wayside Gardens, Mentor, Ohio. Excellent perennials, heavy stock. Informative catalog.

A. E. Wohlert, Narberth, Pa. Flowering trees.

#### Bulbs

Many of our best bulbs are imported from Holland, France, Japan, and other countries to United States dealers for distribution. Some firms specialize in imported bulbs while others carry bulbs grown on the Pacific Coast and elsewhere in this country. Holland sends us large quantities of tulips, narcissi, and hy-

acinths. From France come narcissi and the Madonna lily. Importations are restricted to limited quantities and so the field of bulb-growing in this country is enlarging. Reliable dealers are any of the nurseries mentioned previously whose catalogs list bulbs in named varieties. John Scheepers, Inc. (flower bulb specialists), New York City, Wayside Gardens, Mentor, Ohio, and Stumpp & Walter Co., New York City, are known to have exceptionally good collections from which to choose.

It pays to buy bulbs of good quality since no more effort is involved to grow good ones than poor, and the results are so much more effective from the better bulbs. A high price does not necessarily indicate more value or beauty in bulbs but rather is a sign of a new or rare variety. Bulbs should be purchased from the first-class stock of reliable dealers. Bulbs may well be ordered early since many dealers allow a discount if orders are received in summer before their final deals are made with the foreign growers. Sometimes friendly groups, such as garden clubs, will pool their bulb orders to obtain further discount. When ordering bulbs by mail, one must depend on the dealer's integrity to send good bulbs. The qualities to be look for in a sound, healthy bulb are firmness, maturity, and freedom from insect pests, diseases, and bruises. Soft, flabby bulbs are usually due to a long exposure to a warm temperature after digging. A well-matured bulb, when cut in half, will show the embryo plant well developed inside. Mature tulip bulbs will be white rather than green under the outer brown scales,

Bulbs require good drainage. They should be planted in autumn early enough for root development to take place before the ground freezes. However, they must not be planted too early in fall lest the warm weather should start an undesirable leaf development. Much of the success in bulb-growing depends upon the proper depth of planting. This varies with the type of bulb—a general rule being to cover the bulb with soil from one and one-half to three times its own depth.

### References Books

The following is a list of useful references from which the amateur may make his own selection. Readers should be on guard

against disguised advertising in the more popular magazines.

Pioneering with Wildflowers, by George D. Aiken. Putney, Vt.: published by the author. \$2.

Wild Flowers and Ferns, by Herbert Durant. New York: G. P. Putnam's Sons. \$3.50.

The Modern Nursery, by Alex Laurie and L. C. Chadwick. New York: The Macmillan Co. \$5. Useful for standards determining the grade of nursery stock.

Annuals in the Garden, by H. Stuart Ortloff. \$1.25.

Book of Bulbs, by F. F. Rockwell. \$2.

The Lawn, by L. S. Dickinson. \$1.25.

Hardy Shrubs, by F. A. Waugh. \$1.25.

The Garden Book, by V. N. Davis. (Vegetables) \$1.25.

How to Grow Perennial Flowers, by Victor Ries. \$1.

Trees and Shrubs for the Small Place, by A. H. Carhart. \$1. How to Grow Vegetables and Berries, by A. Kruhm. 50c.

## Gardening Magazines

For the advanced amateur:

Gardeners' Chronicle (of England).

National Horticultural Magazine.

Journal of the Royal Horticultural Society.

New Flora and Silva.

For the average home gardener:

Journal of the N. Y. Botanical Garden.

Horticulture.

Gardeners' Chronicle of America.

Lexington Leaflets (Lexington Botanic Garden).

Bulletin of Popular Information (Arnold Arboretum).

Bulletin of the Garden Club of America.

Publications of the special flower societies.

For beginners:

Brooklyn Botanic Garden Leaflets.

Flower Grower.

The American Home. (Houses and recipes as well as gardening; the articles are good.)

# COMPARE NATIONALLY ADVERTISED AND PRIVATE BRANDS

Consumers Need Not Fear to Tread Where A & P Rushes-Out

were recently thrown into something very like a panic by the issuance of an A & P handbill (see opposite page) which compared the prices of well-known nationally advertised brands with those of A & P's own comparable brands. The comparisons indicated a 29 per cent saving for consumers who purchased A & P products in preference to those of the national advertisers.

The A & P handbill was released only in the New Orleans territory. When a bad case of jitters seized national advertisers, A & P promptly announced that this had been merely a local use of such price comparisons and that no more would be issued. Outsiders have no way of knowing precisely what pressures caused A & P to abandon its excellent lessons in consumers' arithmetic. Some of the trade journals think we have not yet seen the last of this kind of informative advertising, and from the tone of editorial discussion, we conclude that they greatly fear a recurrence of the idea.

The A & P handbill has more to teach consumers than the price differentials between nationally advertised and private brands. An equally important lesson goes to the heart of the question of the desire of advertisers not to have truthful, candid, and useful advertising. In a more rational merchandising world, the normal procedure would be for the makers and advertisers of national brands to make comparative quality tests of their own products and those of A & P, and to show that the 29 per cent price saving on A & P goods is offset, or more than offset, by the superior quality of the national brands—that is, if such superiority were to be revealed by the tests! But what if the tests revealed no such superiority in quality, and A & P's guarantee of equal quality stood up? Then there would be one and only one inescapable deduction from the laboratory evidence, namely, that somewhere in the closet of nationally advertised brands there is a skeleton of inefficiency of distribution for which consumers are charged about 29 per cent. Such an experiment, if conducted found unfavorable to the nationally advertised products, would have crucial and significant effects on advertising.

The whole matter resolves itself into a simple and inescapable revelation that advertisers really do not believe their own stuff and, of course, that they do not dare subject their claims for superiority to the cold and

# Compare Save 29%!



That's a broad statement...but here is proof! A & P Food Stores offer always, nationally known and nationally advertised food products as well as many others of only local popularity.

But in addition, we ourselves manufacture, in modern plants strategically located in producing centers, many extremely high quality products. These can be sold at a worthwhile saving because it is a one-profit transaction from A&P (the manufacturer) to you!

We GUARANTEE the Quality to be equal! ..... Compare the prices!

Nationally Known Foods	Price	A & P's Own Manufacture	Price	SAVE
Heinz Ketchup	235	Ann Page Ketchup	15*	8#
Miracle Whip	25¢	Rajah Salad Dressing stat	19#	6#
Knox Gelatin	20¢	Sparkle Gelatin	104	104
Calumet Baking Powder !:	13*	Ann Page	104	34
Cocomalt	234	Coconog	15:	8#
Cream-of-Wheat	25	Mello Wheat	175	84
Hershey's Cocoa	10c	Ann Page Cocoa :	70	3*
Jell-O or Royal	51/2	Sparkle ( 114 m.	41/25	15
Campbell's Beans	84	Ann Page Beans	71/2	1/2 €
Pet Milk 11% on	71/21	Whitehouse Milk	7:	3/25
Magnolia Milk	121/25	Whitehouse Condensed ""	104	23/25
Lipton's Tea	23#	Nectar Tea	15	8¢
Luzianne Coffee 15.	214	Crescent City Coffee	155	61
Kellogg's Corn Flakes	134	Sunnyfield Flakes	10¢	35
Quaker Oats	104	Sunnyfield Oats	73/25	23/20
Total Purchase	2.40	And On A & P's Own	1.70	701

Every single food or household item sold by A & P is unconditionally guaranteed! If it fails in any way to entirely please its purchaser it may be returned for an unquestioned, courteous refund or exchange.

· A & P FOOD STORES ·

objective test of relative quality and relative economy measured

in the laboratory.

There is no reason why local groups of consumers may not on their own initiative undertake to make such price comparisons as those which A & P has now abandoned, and to relate their findings more adequately to their interests as consumers by supplementary comparisons of quality. The very core of the work of Consumers' Research for consumers lies in its continually making exactly such comparisons of quality and economy

as consumers want-and as advertisers do not dare to make. Who will be the first to report the completion of such a project in which advertisers' claims for better quality and greater economy of trade-marked articles are tried in the crucible of objective testing? Consumers' Digest will be happy to announce in a future number the work of the first group to take up the challenge of the A & P advertising, the discontinuance of which caused such a sigh of relief among advertisers of trademarked goods.



# LOW COST OF GRADING CANNED GOODS

Unremitting Consumer Pressure Needed to Obtain Grading

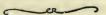
NE of the favorite arguments of ments of the canners who are opposed to quality grading of canned goods is that the cost of grading would be prohibitive; and they try to frighten consumers into agreeing with them by saying, "And, of course, this cost will be passed on to the consumer." What is this cost that they continually refer to as prohibitive? When one progressive canner, Mr. G. L. Webster, wished to put out his cans labeled U.S. Grade A, he was told by the Department of Agriculture that he might do so if "the whole packing process were conducted under continuous supervision and according to the most exacting specifications." Mr. Webster, of

course, was to pay the salary of the inspector supplied by the Bureau of Agricultural Economics. Mr. Webster agreed, and the experiment was carried through. According to an article in Advertising & Selling for September 27, 1934: "The cost of the continuous inspection service—far more elaborate and costly than would be necessary simply to keep a periodic check on a company's output—averaged just \$.0002083 per can or approximately ½ cent a case."

No consumer would consider this a prohibitive cost for the pleasure and financial advantage afforded by knowing that the claims made on the outside of the can conformed to the goods inside. In fact, if he does a little

arithmetic he may well consider that the tiny fraction of a cent spent for the quality grading of, say, a can of string beans, is the highest-paying investment ever made. A recent test showed the contents of two cans of string beans to be identical in quality although one was bought for 12½ cents and the other for 7½ cents. If these two cans were to be graded and their quality declared on the labels, the consumer would be enabled to save himself five cents on every purchase of a can, or in other words, make the impressive return of approximately 24,000 per cent on his investment of \$.0002083 spent for testing. Further proof that competent grading usually comes at a very trifling cost is afforded by the fact that the cost of meat inspection by the government has always been very low. According to B. F. McCarthy of the United States Department of Agriculture, "It has never exceeded a small fraction of a cent per pound; during 1933 the average cost per pound was around 1/8 of a cent."

Of course, there is no valid reason why the expense of quality grading should, even in part, be passed on to the consumer. If the canners can spend many millions of dollars in advertising campaigns, and in writing publicity articles for women's pages of newspapers, and articles giving misleading information generally, it should follow that they are able to spend the much more modest sum required to cover the testing of their products. Incidentally, it follows just as logically that in an economic system in which the canners find it highly profitable to spend huge sums to convince the public that their assortment of Grade C. Grade B. and some Grade A products are all super-extra, nonpareil, XXXX, super-fine, and Nature's Utterly-Finest, they will never of their own volition grade their products, let alone spend money in having it done. They must be prodded into action by strong and unremitting consumer pressure. But even if the consumer must bear the cost, as he quite likely will as matters finally come out, he will find it an investment unparalleled in his experience, in the rate of return received.



## A Merchant Shows the Way

About two years ago, I had posted in our retail store signs wherever insecticides were sold, which read:

Lead is a dangerous cumulative poison. We do not recommend the use of lead arsenate or any other form of this material on any vegetable or fruit used for food.

-Vaughan's Seed Store, Chicago, Illinois, From a letter to Consumers' Research.

# AN ENGINEER LOOKS AT THE 1937 AUTO SHOW

The Predominance of Eye-appeal in New Cars

YITH few exceptions the automobiles for 1937 are somewhat more pleasing to the eye than those which have gone before. They may, perhaps, be divided into two classes, those which have followed the Lincoln-Zephyr trend of last year, and those of the snub nose type whose motif probably originated with the Cord of 1936. Whether we like them or not, they are distinctive in appearance - an effect achieved by redesigning the non-essentials, such as radiator grilles, and in some cases by changing from the conventional method of opening the hood to get at the engine, to the Zephyr type, in which the entire top lifts up in one piece. As to whether or not they should be called new cars, there is ground for discussion, since construction changes as in past vears are few so far as engine and chassis are concerned.

Perhaps the most interesting feature of the General Motors line is the retreat of the Fisher Body Company from its battle against the all-steel body, pioneered by Budd so many years ago. After advertising the advantages of the composite body as against the trend toward steel, those who battled for composite bodies have now not only capitulated but seem to be trying to make the public believe they are the originators of the all-metal

design. The so-called turret top on last year's body paved the way toward this year's change, and the steel top now seems to

be universally adopted.

Battery location has had attention also and a number of cars now put the battery up under the hood where it is easily accessible. Much battery trouble in the past can probably be attributed to the difficulty of getting at the battery for examination and refilling with water. Now the battery can be checked whenever the oil is examined. While it is a fact that water will probably be evaporated more rapidly in the new position by engine heat, this seems to be outweighed by the much greater convenience of the new location.

Hypoid gears are found in the rear-axle drive of a number of cars with the object of lowering the floor of the car and avoiding the use of the "tunnel." This was pioneered by Packard and is continued by them in spite of the grief they encountered from the lubrication problem with which such gears confront the manufacturer and user. The hypoid gear presents a particularly difficult problem, according to the representative of one of the biggest oil companies, as it involves a decided wiping action to a much greater extent than the spiral bevel does, tending to remove the lubricant from the surface where it is needed, along with the excessive stresses to which all rear drives are subjected.

All the oil companies are working at the problem, but it will be wise for the consumer to assume that it is not vet a satisfactorily solved problem. There will certainly be rear-axle trouble because of lack of both care and knowledge on the part of service station mechanics when they check or refill the rear-end differential case. Some car builders, realizing this problem, are more or less forced to specify particular types brands of lubricants for their cars, which naturally is not pleasing to makers of other oils which may be just as good but have not yet been tried out in this especially severe service. One cannot rightly blame the car builder for specifying oils that have worked out well in his tests, and it will be good advice to follow the car manufacturer's suggestions exactly and to disregard the opinion of service station operators on this head, however persuasively their view may be presented.

Another fly in the oil man's ointment is the suggestion that you need never change oil if you use certain oil filters advertised. As a matter of fact, the oil changing business comes near to being a racket [the fact that the customary frequent changes are not necessary has been repeatedly pointed out by Consumers' Research over a period of years] if the experience of some engineering-experts means anything.

Some engineers who know the most about oil and the lubrication of automobiles consider that one will be changing oil often enough if the oil is changed and the crankcase flushed out every 500 miles for the first 1,500 miles, to work out any dirt or foreign matter that may be in the system. Then they add oil only as they need it, and never change. One very well posted engineer, who makes tests for different makers, had, when last heard from, run his engine well over 15,000 miles without oil change.

Some years ago, Charles F. Kettering, who has been a pretty good automobile-future-predictor for some time, stated that a 115-inch car would soon be considered as a big car. While there are many who feel the same way, he seems to have slipped on his prophecy this time as the trend is all the other way. The only trend at all towards smaller designs is the small Ford engine with a corresponding decrease in weight, but this decrease is of no great consequence. This Ford uses the smaller V-8 engine that has been used in Ford cars for the European market for some years. Rated at 60 horsepower instead of 85, as is the larger engine, it should give all the power and performance that any one needs (but not all that some people, miseducated by the irrational trend of recent years in automobile manufacture, will think that they should have). The only other low-powered car that might be taken to be a serious competitor of the 60-hp

Ford is the rejuvenated Willys, which seems to have a new lease of life. The appeal of the smaller-engined Ford will be more because of its lower licensing cost and the increased mileage per gallon of gasoline than because of the difference in price, which is comparatively small. For, aside from the difference in the weight of the material in the two engines, there is practically no difference in the cost of manufacture. The small engine has higher compression and uses aluminum cylinder heads while the large engine has gone to cast iron (some of the earlier engines of this year used aluminum). Both use steel pis-

Although none of the car builders are stressing speed, either in "being the first away at the light" or in top speed, practically all of them have increased the power of the engine, even if only a little. A trifle higher compression or a little higher rotative speed have been used to boost the power until most of the medium-sized cars now have in the neighborhood of 100 horsepower. When one sees SAFETY FIRST in large letters on speedometer dials, while the range of speeds runs up to 100 miles per hour, one may be pardoned for wondering what kind of ideas find lodgment in automobile sales managers' minds.

More attention is being given to safety in the cars themselves. Door handles are being curved so as to reduce the danger of catching clothes, and one car on the market has door handles which close flush into the door panel. However, this is not yet standard on any car that has been shown. Dodge has led the way in recessing all knobs and handles of the instrument board into the panel, removing all projecting parts that tend to make a crash more dangerous. And yet one large car exhibits a radiator ornament that might be used as a gaff in deep sea fishing. It projects so far that anyone struck would be impaled.

Divided windshields seem to be gaining. A few are in two parts, which adds to the mechanism and joints through which rain can work its way. Some however have a one-piece frame with a narrow dividing bar down the center. Setting the windshield windows at an angle from each other is supposed to reduce the troubles from glare in night driving. While most of the windshields still open if desired, a few are fixed, which greatly reduces the hazard of leakage, although likely increasing the hazard of carbon monoxide and fumes from the engine. With the defrosting devices now available, some of which are being built into the car, some manufacturers have taken the ground that the necessity for opening the windshield has largely disappeared. Some of the new defrosters are part of the instrument board while others are attachments that blow hot air upon the glass in front of the driver. Pistons are in a state of change

as usual. Some makers who had stuck to cast iron are changing to aluminum alloys, while others are going back to ferrous metals. Ford has developed a steel alloy that has been used successfully on the *Lincoln*. Others are said to be working along similar lines. Some of those who are using aluminum pistons are anodyzing them, which gives a hard surface and reduces wear. Some iron pistons are still being plated with tin or similar metal.

Automatic transmissions. which were predicted for 1937, have not materialized. None but Hudson, Terraplane, and Cord seem to be using "finger shift" that has been available for two years or more. Studebaker tried it on experimental cars two years ago but passed it up, probably remembering its unhappy experiences with freewheeling. Those who claim to know say that it can get very balky in very cold weather, owing to the stiffness of the oil in its operating cylinders. Neither has the overdrive been adopted to the extent expected. It is still available on some cars, generally in what may be called the "controlled automatic" form. That is, it becomes automatic at certain speeds when the proper button is pulled or pushed, as was the case in freewheeling. seems to be no move toward the so-called "fluid flywheel" such as is used in England.

Convenience in carrying baggage as well as spare tires has received much attention. Even the cars which flow down in a smooth line at the back, have baggage space that is accessible from the outside instead of requiring a contortionist act to stow suitcases and other luggage behind the back of the rear seat. By adding a bulge of a few inches, which does not detract particularly from the appearance, manufacturers give a little more space and have the excuse for charging several times its cost, as an extra. There are few tires now to be found in fender wells, common a few years ago. Only one spare is carried in most cases and that reposes in the trunk, under a shelf on which baggage is stowed away. Drivers should remember that the spare tire should be refilled with air from time to time; many, perhaps half, of the spares in trunks do not have their air pressure kept up as they should. The Zephyr has a clever mounting for the spare on a bracket that can be swung out for easy access to the trunk space. This spare is easily tested for air pressure.

Hydraulic brakes have won another convert in the shape of the big Cadillac V-16 which has heretofore had mechanical brakes. This makes it unanimous for General Motors and for all large makers except Pierce Arrow, Ford, and Lincoln. Fords retain mechanical brakes, with cable hookup this year, and the parking brake at the left under the dash. The braking efficiency is said to have been improved by new self-energizing brake

shoes.

Six-cylinder engines are ap-

parently in greater favor than during the past few years. Buick is one of the few lines without a "six." Their smallest car is now a 122-inch wheel-base "eight" with about 100 horse-power. LaSalle has switched from the Straight-8 to a V-8 from the Cadillac line. Packard's new "six" is much like its 120 of 1936 except for the engine. The front end is still unmistakably Packard, which prevents making a smooth-looking car according to present-day ideas.

Graham retains the supercharger, the only one other than that on the Cord. Auburn is not exhibiting, as the new car will not be ready until March, 1937. Whether this means a radically new car remains to be seen. Advocates of rear-engined cars are hoping Auburn will lead the way to this, a really revolutionary change in car design. The great increase in automobile sales has pushed anything as radical as rear-engined cars into the background for the present.

### How the Pinkhams Began-A Sales Tactic That Worked

Back in 1878 there was in New England a man named Pinkham in the real estate business. A fellow had owed him \$300 and paid him all but \$25. Pinkham wanted the \$25 and kept at his man until he said, "I cannot give you the \$25 but we have a recipe in our family. It is good for things that ail women, and men occasionally, and if you will take it for the \$25, I will turn it over to you."

Pinkham took this over and gave it to his wife Lydia. She brewed up a batch. It was pretty good and they began sending it about the community. Eventually Pinkham died. Lydia was left with the recipe. Finally two of the boys decided to develop it into a business. One of them went to New York City and walked around thinking of ways to promote the sale of this valuable material. As he walked about in Central Park, he used to write little hand-written notes and drop them on the walk. Somebody walking around, seeing the personal note, would pick it up although they knew they should not do so. It would read something like this:

"Dear Suzie: You know those troubles and pains from which I suffered so frequently. I don't have those any more because I found a wonderful medicine known as Lydia Pinkham's Vegetable Compound. If you will go to the drug store at 48th and Broadway and get some, it will help you as it has helped me. Very confidentially, Your Friend, Mazie."

Suzie would go to that drug store and ask the druggist for some. He would not have it, but a good many people would ask him for it in the next few weeks and finally a salesman would come and suggest the druggist stock up. He would take ten cases, or something like that, and the business got going very well.

-Dr. Morris Fishbein

in National Carbonator and Bottler

# ALONE TOGETHER

By

MRS. JEAN AUSTIN, Editor, The American Home

o you know that when this song "Alone Together" first came out I thought it a beautifully ironic title for a love song? But not at all. Crooners swayed with heavy passion when they sang it, and there was never a twinkle in an eye when it was announced. They put on all the organ stops, tugged mightily at the old heart strings, and it was a terrific hit. Apparently none save myself ever thought of it as amusing.

Well, I still think it an amusing title for a love song. But when your business and my business make it our theme song, and live up to it literally—I do not think it quite so amusing. YOU know that all editors are dodoes, and WE know that all advertising men are impossible. And so here we are—alone together. Just one happy little family with the same patient, hard-

working bread-winner!

BUT—have you noticed that Papa and Mama are changing? Papa does not seem to have as much patience with our antics. Mama is not so gullible. Papa's playing bridge on the commuters' train these mornings, instead of burying his nose in the paper to seek out our heaven-born messages. Mama is not taking so long to frizz her hair, and has gone in for this air-conditioning business pretty seriously. Mama used to be the bridge fiend, neglecting home, children, husband, and country . . . and remember how prettily dumb she used to be about "business"? Papa used to buy the house. Now it's Mama the realtor is concentrating on-and finding her a pretty tough customer to sell. My, my-where IS that fellow who lulled us all to sleep with the comforting lullaby about our bread-winner being aged 14 years? Do you suppose that what he really meant to say was "have you ever TRIED to fool a 14-year-older?" Well, so have I, and shrewd, fickle little brats they are at 14.

Now with Papa squirming at our antics and maybe on account of as how Mama is so restless these days, you and I had better throw overboard all this 14-year-old psychology and our

pet theories, and swap what we know about them — shall we? You doubtless can tell me plenty—but right now you can't. This is my program. There's spleen on my chest.

Of first importance to both of us is this building boom that is gaining such tremendous momentum. Our folks are on the biggest housing hunt in history. There is an average gain of 80% in building construction, Republicans notwithstanding. Los Angeles is first, New York second. But Cleveland reports a gain of 325%, Baltimore 225%, St. Paul has 100% occupancy, Cincinnati 991/2% occupancy, and Detroit 99%. There's a shortage of good, manly plumbers in Portland. Building has doubled in New Orleans, and Duluth reports all livable quarters are occupied. No local epidemic this, but a nation-wide boom.

Now these figures you may all know-but do you know how they will affect your business and mine? In just this way. If you and I do not understand that this is not just a building boom, but an entirely new way of living, it is going to be anything but a return of prosperity for us. It is bringing about an entirely new distribution of the family budget. Houses are going up but incomes are not going up-yet. And only if you and I take a hand in directing this redistribution of family income can we

hope to profit by it.

For years it has been our business to introduce luxuries and sell them as necessities. In a very few years' time, we have made air-conditioning, insulation, electrical equipment, automatic heat, cosmetics, liqueurs, and mushroom soup necessities. We have proven the inconvenience and impossibility of living in the suburbs without a second car. We have told women it was cheaper to buy canned soup than to make soup—and so it is, but only if time is money, and time is what women have the most of. We have done our job so well, that even fruit juice is too much effort to squeeze.

Now it must have occurred to you, as it has to me, to wonder just how they were going to buy all these comforts and luxuries we termed necessities. We were raising their standards of living, but their bosses were not raising their salaries. Incomes remained stubbornly static, in fact still ARE mighty reluctant to take cognizance of the fact that we must have all these new comforts to be happy. The answer? You'll find it in what the public calls a building boom, but what is really a new way of living. The budget will not conveniently stretch, and so they have merely set up a new distribution for it! They are paring in those places which mean least to them and building themselves a new house for a new mode of living. With the same incomes and increased wants, you and I have got to see that this paring is not done down our alley. The solution? Talk up THEIR alley.

I should think the first thing to do was to begin to respect our Mummy and Daddy. Let's ask our art directors to take their tongues out of their cheeks and go to work for us, instead of impressing their fellow art directors. Our prestige copy-writers have somehow got to be impressed with the fact that the discreet little appendage of a trade-mark in six point italics is just not good enough. And you and I have got to get our heads together and find out what's going to happen to us during this building boom.

You and I have been incredibly stupid. Are there anywhere in this country two businesses absolutely dependent on one another for their livelihood, that behave as we do? What is this foolish idea about an editor contaminating virgin skirts by contact with advertising men — are we not in exactly the same business, that of making Mummy and Daddy discontented with what they have? We call it raising their standards of living—but no matter what we call it, it is nothing more than spreading discontent with what they have and jogging them out of their rut by constantly flaunting new things before them. And to do it successfully, I have got to know what you plan to flaunt and you've got to take my judgment as to just how much they will take at one dose. It's a lovely little aura we editors have, and you are pretty smart guys, but just think what we might do together—my beauty and your brains, instead of alone together!

A short time ago, for instance, there was sprung upon a hushed, waiting public, a new musical instrument that cost more than any single piece of furniture in the average small home. Now we sold them that bill of goods some years ago—but I might have told you it couldn't be repeated. They were spending just a little differently those days. Someone—and that someone should

have been you and I—should have told your client his sucker market had dropped off at an appalling rate. But I couldn't tell you or him that. First, because you didn't ask me. Secondly, because he and his stylist knew a good thing when they saw it, and he would have put it on the market anyhow. And us? Well, I know and you know. We would have only spoken out of turn—and lost the account because the editor had her head in the clouds and did not BELIEVE in his product! Remarkable, really, what ground-gripping feet some editors do have—if only you would forget the pedestal and take a good look at editorial feet that get places.

I know, for instance, that the sizes in which most food products are packed, are wasteful. A can of peaches will not serve four, and is too much for three. Had you looked into as many ice-boxes as I have, and seen two halves drying up in a saucer or being tastelessly served the next day for luncheon, you would not allow that canner to wilfully pack his peaches so that they would have to be served—AND REMEMBERED—as leftovers.

I want to take just two cracks on this song and dance number. The first, at our awe for dietitians. We have one, a good one too. She knows all about calories and vitamin P and Q, but privately speaking, I wouldn't pay ten dietitians \$10.00 a month in my own home kitchen. They might feed me correctly, but in our house we eat WELL, and just so long as dietitians continue cooking passionate pink cream puffs garnished with dill pickles, itsy bitsy cream cheese balls in the center of canned pears; and "dainty" salads that make one turn the color of the lettuce leaf on which they repose-they won't get a job in my kitchen and they shouldn't be in your advertisers' testing kitchens. I don't know a vitamin when I meet its sunshine giving qualities-but CAN I cook an apple pie! Apples aren't very good advertisers, of course—but if I were selling canned peaches or gelatin I'd think of something else that would get cooked in family kitchens instead of weird messes apparently concocted by dietitians for the sole purpose of being photographed in unnatural color. Certainly I have never been so unfortunate as to have them served up in a real home.

And do you remember when the buffet supper epidemic was

at its height? Cheese dishes got bigger and bigger and BIGGER, until it came to a point where one had to build a wing on one's house to store the cheese tray—or go without cheese trays. So we all got a little tired of cheese trays.

Wallpapers admittedly needed pepping up. And were they pepped up! They got so ultra ultra on us that to use the wallpaper one had to throw out all the furniture, so shabby was it by comparison. A perfectly lovely idea, of course. But somehow people are SO stubborn about these things.

Now here's my second—and positively last crack. Any stylists present? I hope not, for I've been laying for stylists for a long,

long time.

Lemon yellow and silver are just too lovely together. Beige rugs and white satin upholstery are terrifically smart. But just suppose Papa came home some night and wanted to sit around? Not on white satin, he couldn't. A recent model guest room was done in blue satin and raspberry. Can you imagine any man sneaking into that blue satin bed? Looked sure enough like a couch of sin—but nice men don't want a couch of sin—in their friends' guest rooms, that is.

Like you, I hailed the coming of the stylist. They seemed the answer to our clients' doldrums. Unfortunately, however, most stylists are so damn smart they have neither children nor men and when we set them to work designing things for a home with men and children in 'em, they go too far with us. Or rather, they're so far ahead of us, our consumers never quite catch up with them. They may make a few feeble efforts, but most of them just decide "to get along with what they have," and the next time we introduce something new we have to work twice as hard to get it tried out—they remember their first disillusions.

Remember when no self-respecting bedroom held up its head unless it boasted both dresser and chest of drawers? Well, I seem to get into a lot of bedrooms on one pretext or another, and I've noticed the conspicuous absence of the dresser. Know why? Well, I can guess. The dresser drawers were evidently designed in Grandma's days, for hoop skirts and starched unmentionables. And what was good enough for Grandma is good enough for us. Said the furniture industry! We became increas-

ingly annoyed at our tidy little piles of silk undies floating about in them inefficiently and Friend Husband found them just shy of taking three stacks of shirts lengthwise and sloppy with only two piles. We started experimenting with built-in contrivances in our clothes closets and found we could get along beautifully without a dresser and do just that.

Or take people who make canisters and such like. They evidently took the depression at its face value. Sure, their canisters hold a pound of coffee—but heaven help you if you have one tablespoon of coffee left over before you try to pour the new pound in!

So what? Well, the manufacturer stays strictly away from all editors. So far as the advertising man is concerned, editorial cooperation comes AFTER his clients' goods are designed and made. And the editor stays away from them both as much as he possibly can, because seeing a manufacturer and drinking his "opening martinis" or talking with an agency man means being put on the spot. One comes home staggering with publicity on things one knows one hasn't got a chance of putting over on his hard-boiled 14-year-old readers. The manufacturer puts his trust in styling, the advertising man puts the onus on the dodo editors, and the editor haughtily retreats to the holy of holies—to get hell from the publisher. An intelligent business we have made of it — eh, what?

Now if you and I could forget that we are in the advertising and publishing business and think of ourselves as being in "trade marked" selling, we'd get somewhere. For that is exactly the business we are in. My competitor is not some other publisher or editor nor is yours some other advertised product similar to your clients'. Our mutual competitor, the slippery, dangerous competitor is the man who knows what will SELL. All too often, he's the little fellow who does not advertise, and we lull ourselves with the comforting thought that he gets the business away from us because he undersells us. And so he does—but that is not what makes him dangerous. He cannot afford to make a mistake. Like old Vanderbilt, the hell with elevating the public. He cannot lean on the prop of a big advertising campaign. And so he

puts his ear to the ground and comes through with something that really SELLS.

You've seen him—bashing in his nose against a window, taking mental and "not-so-mental" notes. But have you noticed too, that afterward he steps aside and sees whether the crowds stop and look also? Well, a successful editor spends considerable time bashing in her or his nose against windows, and you don't have to rely on our judgment. That virtuous little pink A. B. C. statement soon indicates whether we picked the right windows to look into. Why don't you ask us sometime what we see?

Sometimes, you know, we get a break like the harmless little simpleton on Cape Cod. A friend had taken an old salt-box, without benefit of bath—this being a PURE Cape Cod. The bedroom, being at the back, was naturally pretty low slung, and one day during a vigorous sponge bath she looked up to find the town's harmless simpleton bashing his face against the screen. At her indignant demands to go away, he calmly shook his head and replied, "No, Ma'am, I won't go 'way. I'm seeing things today I never 'seed' before."

Now I can't promise you any convenient salt-boxes in this new building boom, but I can tell you about some of the things that are going to be built up around us and how they are going to affect us. For one thing, they are putting in a powerful lot of windows in these new houses. Nice for the window people, nice for the shade and blind people, nice for the glass and fabric business. But NOT SO NICE for the paint and wallpaper business and not so nice for the furniture industry. Going to do things to them, those windows. First place, they take up almost one-third of the wall space. One third less paint or wallpaper area. Less furniture, of course, unless we can think up things that fit under all those windows. Calls for smaller scaled furniture and there's a suspicion, oh, ever so faint, but there all the same, that they are getting just a bit surfeited with maple and early American farmhouse. The new houses are no longer "cutesy" and it's more elegant furniture they'll be looking for during next February's furniture sales.

And have you noticed that when the house gets smaller, the living room gets larger? Goes the whole length of the house,

yes, sir! Can you imagine where the die-hard 9 x 12 rug people are going to get off if they don't soon take a look at these new floor plans? Selling them for hearth rugs—at scatter prices—that's what they'll be doing. Kitchens are smaller but have more cupboard space. Smaller and expensive, all at the same time, and looks hopefully as though the old hand-to-mouth buying might be on the wane, now that there's more room to put the cans. Dining rooms haven't exactly paid their keep in the small house, and they are now shamelessly exposing themselves as part of the living room. Calls for something new, certainly. And, oh yes, you'll find a gas or oil burner in the cellar, insulation, and airconditioning. And the money for these is being pared from — what? Soap and soup and rouge? Same sized pocketbook, remember. We'd better see to that.

And so on, and so on. You know your business and I know mine, or so we have said. But isn't it just a bit foolish to go on calling it "your business" and "my business," going on alone together? I am sure that I can safely speak for every editor when I stand here with my face hanging out and tell you we want to be used. Did I hear laughter? According to the old precepts you certainly have used us—but how? In the process some of the poor old geese who once laid your golden eggs have just laid down and died on you—and they are just not playing possum either. Every time you allow a client to sell an editor down the river you tear down a stone in your foundation—not your client's. Every time an advertising campaign fails to go over, my business is put back a peg. And so it must always be, just so long as we play at cross purposes, yet take our pay from the same bread winner.

You and I have got to put OUR house in order before we can get a look inside these clean, new, and determined little houses that are about to spring up around us.

That life is earnest, life is real, is horribly dull, of course. My very superior halo and your cleverness just are not appreciated by these clods. But sometime, if ever I am invited again, I should like to tell you how very, very many "life is earnest, life is real" people there are supporting us. Oh, I know I am throwing away my editorial birthright by stepping off the pedes-

tal and talking this low-brow common sense. But if I put away my halo in moth balls, will you swap stories with me?

You may say you do contact editors—but do you really suppose that I have either the time or patience to see the subordinates you send around to editorial offices? I see everybody who wants information, but you do not come to find out what I know about people or people's houses and tastes, you come over armed to the teeth with publicity releases, mighty little of which ever trickles through to an editor's desk. The subordinate you send is usually a long-winded irritating little fellow and he is high-hatted by an associate editor. And this stupid state of affairs has been going on for years. Two big businesses, getting their income from exactly the same source and selling exactly the same markets, yet the principals remain aloof, total strangers. Advertising admittedly losing caste with our mutual bread winners, but the principals too busy to find out why. Jazzing up copy and refined nakedwoman-photography is not the answer. There are fundamentals at stake that art directors, copy writers, and associate editors can never grasp. It is you, who contacts that manufacturer with towels to sell, who must also contact editors with an open sesame to homes. We know, as you do, that this public of ours can buy good towels for 30 cents less than your client has to get for his. Since that extra 30 cents is what pays your salary and mine, together we might find some mighty sound reasons for selling them!

Heaven forbid that our Mummy and Papa become adult on our hands before we DO swap experiences. Papa's not so patient, and Mummy's gone in for air-conditioning. So let's change our theme song — shall we? Alone together is amusing when you croon a love song — but not such a happy choice for us.

Like Capitalist, Like Communist

Miss P. S. Zhemchuzhina, director of the TEZHE (Perfume and Cosmetic Trust in the Soviet Union), recently a visitor in the United States, says: "The greatest shortcoming in the perfume and cosmetics industry in the Soviet Union seems to lie not in the quality of the perfumes, cosmetics or soaps, but in the unattractive wrappers, boxes and flasks." Tests show Soviet quality in cosmetics far below that of the United States. We apologize for ever having so much as intimated that carelessness with regard to quality, with excessive attention to eye-appeal, is a peculiarly capitalist practice.

# CARPET SWEEPERS FOR SURFACE DIRT

Advice on a Household Appliance which Antedates the Prevalence of Electricity

CARPET sweeper has its usefulness for the daily A care of rugs and carpets, but it is by no means to be considered as a satisfactory substitute for other methods of cleaning rugs and carpets, particularly an electric vacuum cleaner, as the carpet sweeper at best removes only surface dirt and is wholly ineffective on imbedded dirt which lies in or adheres to the pile of the rug. Housewives would probably prolong the life of rugs and carpets, particularly expensive ones, by the daily use of a carpet sweeper, reserving the use of their electric vacuum cleaners for a more thorough cleaning periodically.

In a test made for Consumers' Research of five carpet sweepers, it was found that their construction has been quite well standardized, the different sweepers being in many respects nearly identical. Notable exceptions were the jointed handle of the Adler-Royal, the brushpositioning feature of the Grand Rapids "Hi-Lo," and the celluloid window and brush combs of the Wagner.

Manufacturers, well aware of the deficiencies of their sweepers in shedding dirt back upon the floor unless they are operated correctly, issue with each cleaner specific instructions for their operation with a view to preventing them from dropping dirt which has been picked up. If the instructions are carefully followed, this defect can be eliminated.

Some time ago an official of a leading carpet sweeper manufacturer wrote us an interesting letter which further bears out our oft-repeated statement that price is not indicative of quality. (The trade names used are fictitious.) We quote: "... if you asked the dealer for the best ---- sweeper he had, he would likely pass out the 'Gyppem' if he carried that model, because that represents the maximum sale to him and he knows that people ordering goods in that way generally accept the highest priced as being the best. It happens, however, that the 'Gyppem' [priced at \$7.50] is one of our fancy models so-called which are largely purchased for gift purposes, etc., and from our own booklet you will note that we claim no more for it in sweeping performance than we do for our biggest selling pattern, the 'Watercress,' or the slightly smaller model, the 'Pomegranate,' which retail for \$5.50 and \$4.75 respectively." ¶Many consumers will perhaps be surprised at the disclosure that the technique of selling the commonplace for very uncommonplace prices pervades even such oldfashioned trades as the marketing of carpet sweepers. Indeed, in the case of carpet sweepers, as with most other trades, such practices go far back into the very beginnings of the business. Claude C. Hopkins, who wrote My Life in Advertising, perhaps the most brutally frank disclosure of the techniques of getting rich in the advertising business that has ever been printed, was an early power in the Bissell Carpet Sweeper Company's business. When Mr. Hopkins took over the Bissell advertising, "users were few and sales were small." Mr. Hopkins conceived idea of offering sweepers in interesting woods, " . . . from the white of the bird's-eye maple to the dark of the walnut, and to include all the colors between," in each dozen of sweepers produced. In order to heighten the lure, this offer was an exclusive one never to be repeated. Mr. Hopkins said that in this way he appeared to the dealers as a benefactor and not as a salesman, and 250,000 carpet sweepers were sold in three weeks. Mr. Hopkins' employers insisted, in regard to another of his ideas, that sweeper users were not buying woods, that they wanted broom action, efficient dumping devices, pure bristle brushes, etc. But again Mr. Hopkins won over the conservatives interested in the qualities of the product, and dealers were offered the "privilege of buying" sweepers made of vermilion wood. With this sales device Mr. Hopkins sold more carpet sweepers by one-cent letters than 14 salesmen on the road.

And the company came to control some 95 per cent of the trade-with the dealer doing the advertising. When vermilion wood was played out, gold-plated sweepers were tried. In two or three years Mr. Hopkins found himself "running out of schemes . . . [due to] distinct limitations to exciting varieties in carpet sweeper finishes." Mr. Hopkins was given a rise in salary by unanimous vote of the board of directors. Soon, however, he "felt the call to a wider field," and became advertising agent for Swift & Co., selling Cotosuet to bakers and grocers.

Now as to the actual performance of carpet sweepers—the only aspect of real value to the consumer, and one which seems never to have entered Mr. Hopkins' head. In testing the sweeping ability of the carpet sweepers, three types of floor coverings-high-pile carpet, low-pile carpet, and linoleum-were used. These floor coverings were prepared for the test by sprinkling uniformly over their surfaces a mixture of "dirt," consisting of short wool fibers, long ravelings, pins, apple and orange seeds, small buttons, bread and cracker crumbs, and corn meal. It was found that the Bissell was able to sweep the greater proportion of this dirt lying on the surface of the carpet, and the other sweepers, somewhat less on both high- and low-pile carpets. But when the same kind of dirt as used in the electric vacuum cleaner test was employed and

imbedded in the pile of the carpets, the sweepers were able to get only about three per cent of it, and what they did collect was that at or very near the surface. (In a recent Consumers' Research test, it was found that the most efficient electric vacuum cleaner was capable of removing from 51 to 72 per cent of the total dirt, depending upon the type of carpet and the condition of the bag.) All sweepers were considerably less efficient on linoleum, being able to collect only about 80 per cent of the dirt, though in the case of linoleum, of course, all of the dirt was surface dirt. With large objects like buttons, orange seeds, etc., the sweepers were generally unsuccessful on linoleum, and with corn meal a considerable proportion was scattered instead of being gathered up, but on carpets about 80 per cent of such litter was picked up. After the efficiency test, the

sweepers were given an endurance test by placing their floor wheels in contact with a drum which was driven by an electric motor at a speed of 50 revolutions per minute for 100 hours. Sufficient pressure was applied to each sweeper to ensure continuous operation of the brush roller and to bring the brush into good contact with the canvas covering the drum. All of the sweepers gave a good account of themselves on this test, and at its conclusion all were found to be in good condition with little sign of wear, and swept just

about as effectively as before the endurance test.

### RECOMMENDED

Grand Rapids "Hi-Lo," Cat. No. 486 PC 459 (Bissell Carpet Sweeper Co., Grand Rapids, Mich.; distrib. Montgomery Ward & Co.) \$5.50 plus postage. Found to be the most efficient of the sweepers tested for dirt-removing ability on carpets and rugs. The only sweeper tested equipped with automatic brush - positioning feature, considered an advantage in that it places the brush in proper contact with the carpet without the necessity of pushing down on handle, as was necessary with the other sweepers tested.

Wards Supreme Quality, Cat. No. 386 B 452 (Distrib. Montgomery Ward & Co.) \$3.79 plus postage. This sweeper, catalogued by Montgomery Ward until recently, appears to have been dropped from their latest catalog; quite likely, however, it is still obtainable at their retail stores.

Adler-Royal Stream-liner (Adler Mfg. Co., Louisville, Ky.) \$6.95. Has the advantage of a jointed handle which enables the operator to sweep under furniture without stooping. Slightly hard to push.

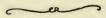
Kenmore De Luxe Cat. No. 11 D 06500 (Distrib. Sears, Roebuck & Co.) \$5.45 plus postage. Hardest to push of the group tested.

Wagner Simplex (E. R. Wagner Mfg. Co., Milwaukee) \$5.95. Equipped with a celluloid window to permit observing the contents of the dirt chamber and had permanently attached combs to clean the brush. The window arrangement is convenient in that it permits the operator to see when the pans need emptying: the combs,

however, are judged to be of very little advantage in keeping ravelings from winding about the brush, and undoubtedly make the sweeper somewhat harder to operate. The Wagner was found to be the second hardest of the group to push.

Elite (Bissell Carpet Sweeper

Co.) \$7.50.



From an Australian Government Report on Gas Treatment of Fruits

The practice of leaving green, unripe fruit for a short time, generally overnight, in an atmosphere containing certain gases has recently been widely adopted. Several gases have been used for the purpose, even the exhaust gases from motor engines, and several kinds of fruit are treated. The great bulk of citrus fruits are now being changed from a green to a yellow color in this way, while a proportion of the bananas and pineapples are also being treated. The appearance of ripeness, however, is entirely fictitious, except when the gas is used as part of a complete ripening process. When used by itself, the treatment leaves green, sour, unripe oranges still sour and unripe, and hard unripe bananas still hard and unripe, despite their deceitful, attractive yellow skin. There is no question that in such cases the practice is fraudulent, as the sole object is to give unripe fruit the appearance of being ripe, and so to deceive the buyers. Unfortunately, the problem of determining when a fruit is really ripe, by definite chemical tests, has not yet been solved. There is, however, already evidence that some consumers are noticing the unripe quality of certain fruits of ripe appearance, and are buying less fruit, owing to the difficulty of obtaining it in an edible condition. This loss of market may help to stop the practice, but in the best interests of the consumers, and therefore also of the growers, the problem created by the new fraud might be met by a new regulation definitely prohibiting such misleading artificial coloring. . . .

# ARSENIC SPRAY ON APPLES

A Radio Discussion of an Urgent Consumers' Problem

Iss Herbst: Since 1906 when the present Food and Drugs Act became a law, interstate traffic in fresh foods has increased many times. You buy spinach from Texas, celery and apples from Michigan, cabbage from Louisiana, and lettuce from California. You demand a firm, unblemished head of cabbage or lettuce, a perfect apple.

Competition is great. To aid in producing this perfect crop a farmer may use a spray in powder or liquid form called lead arsenate spray. Both lead and arsenic are metals which are poisonous to the human body. What is the government doing now to protect the consumer against the dangers of arsenic and lead

poisoning, Mr. Corbus?

Mr. Corbus: The Federal government through the provisions of the present Food and Drugs Act has set up inspection service for interstate shipments of fruits and vegetables. These inspections are made by authorized agents of this department at such points of transfer and terminal markets as Chicago and

other large cities.

The amount of spray or dusting residue considered to be within the safety limit is called the tolerance. For the protection of the consumers of fresh leafy vegetables such as lettuce, cabbage, cauliflower, celery and other greens, also for fruits, this amount is specified for arsenic, lead and fluorine. The last named is another one of the ingredients sometimes used in making a poison for chewing insects. The lead and arsenic residues are the result of excessive amounts of the common and effective poison, arsenate of lead. This is used to control many chewing insects. The most difficult and damaging one of these chewing insects to control in fruit is the codling moth, because of the number of broods in a season and the time at which the last brood appears. This is the reason for the late covering of the fruit with the poison.

MISS HERBST: How much of these poisons may be safely used in spraying and dusting mixtures?

MR. CORBUS: The maximum amount of the residue permitted

The participants in this discussion are: Constance Herbst, Portage Training School; Howard Corbus, Department of Agriculture; and Harold Cook, Department of Biology—all of Western State Teachers College, Kalamazoo, Mich.

in the last notice from Washington for 1934 sets the tolerance limit at ten thousandths of a grain of arsenic per pound of fruit, nineteen thousandths of a grain of lead per pound of fruit, and ten thousandths of a grain of fluorine per pound of fruit. Inasmuch as there are seven thousand grains in one pound, ten thousandths of a grain would make a very small amount of the poison if one ate a whole pound of the fruit. That is if the residue were up to or under the residue tolerance allowed.

The danger comes from the careless use of these insecticides and disregard for the recommended treatments for these chewing pests as they are advised by our Agricultural Experiment Stations. In some cases the amounts of residue might run high enough to be dangerous to the consumer. There is some difference of opinion on the effectiveness of some possible treatments for the chewing pests to avoid the necessity for washing of fruits, but there seems to be quite a general agreement on the advisability if not necessity of washing fruits, especially apples and pears for market, as a safety measure.

In the absence of state laws covering the matter of poison residue, the Federal laws are used, but if adequate inspection were possible there would be still greater protection for the consumer within the state.

MISS HERBST: You speak of the advisability of washing certain fruits. Is this being done?

Mr. Corbus: Yes, at the present time there are more and more outfits being installed in cooperative shipping association stations for washing apples and pears. I am also told that some buyers are getting equipped to offer the smaller grower the benefits of washing service where the farmer sells to these buyers.

There is quite a different cost connected with washing fruits and this will have to be added to the cost of the products sold. The demands made upon the producer of fruits and vegetables for table use have been greater each year and the consumer must recognize the fact very soon that he will have to pay for one more service in the way of inspection and washing if he is to receive the protection he is afforded in other fields.

Chemical analysis service is given by the chief chemist of our state government when questions arise over tolerance violation.

MISS HERBST: Are food products the only possible sources of arsenic and lead poisoning, Mr. Cook?

Mr. Cook: No, Miss Herbst. There are many other sources. One may be exposed to arsenic poisoning in the making and use of dyes, particularly hair dyes; from the making and wearing of felt hats; in the making and use of insecticides such as moth sprays; in the manufacture and use of certain toys; in the printing and hanging of wall paper; in the preparation and handling of furs; in the making and smoking of cigarettes; in the use of certain cosmetics and patent medicines; and from eating such sea foods as oysters, lobsters, etc.

Whole families have been poisoned by lead from the drinking of water flowing through lead pipes. Children have been poisoned by blowing lead whistles or playing with lead soldiers obtained as prizes in boxes of candied popcorn or similar confections. Babies have been poisoned by chewing at the lead paint on their cribs or on their toys. Members of the household have been poisoned from lead cooking utensils or from lead used to close tins of meat or fruit, or lead in hair dyes.

Workers are exposed to lead poisoning in the use and manufacture of lead paint; in typesetting, dye making, silk dyeing, electroplating, enameling, in the use and handling of ethyl gasoline, and in the wiping of storage battery terminals.

MISS HERBST: In my contacts with children and their families, and among all my friends and acquaintances, I have known of only two cases of metallic poisoning over a period of fifteen years. Mr. Cook, why have we heard so little of this type of poisoning?

Mr. Cook: Because the symptoms of arsenic and of lead poisoning develop slowly and are not easily detected. Arsenic and lead are cumulative poisons. They tend to be stored up in the system faster then they are excreted. When the accumulated poison from any number of sources reaches the point where the particular individual is susceptible, definite evidences of poisoning appear. Since these symptoms appear gradually rather than suddenly, as in the case of acute poisoning, their cause is difficult to recognize, and it has only been in the last few years that the prevalence of chronic poisoning has been recognized.

The storage of lead in the body may go on for long periods without detection, and suddenly become a dangerous illness due to a partial unbalancing of the body processes brought on by exceptional indulgence in alcohol, a badly balanced or a deficient diet, or by an acute infection. In the earlier stages, the attack is very likely to be confused with other causes of ill health.

MISS HERBST: What are the harmful effects of these metals when they get into the body?

Mr. Cook: Chronic arsenic poisoning is manifested by such symptoms as: weakness, loss of appetite, abdominal pain, sometimes nausea, vomiting, diarrhea, or constipation, hardening and pigmentation of the skin, loss of the hair, skin eruptions, nerve affectations, e.g., neuritis, paralysis, impairment of sight. Chronic lead poisoning manifests itself in gray-ashen pallor, weakness, digestive and nervous disturbances, wrist and foot drop, a secondary anemia with increased pigments in the blood and urine, a characteristic stippling of the red blood cells, a bluish black line near the teeth along the margin of the gums, painter's colic, constipation or diarrhea, pains in joints, and occasionally a mania-delirium and coma.

MISS HERBST: With so many possible sources of these poisons we should do away with those sources which can be eliminated. Insecticides, food products, cosmetics and patent medicines may add to the dangers of metallic poisoning of the consumer. They should and can be under government control. But until we are protected by law, consumers should know how they can protect themselves. Mr. Corbus, what precautions can we take to safeguard our health?

Mr. Corbus: The advice given by one health commissioner was this: "Eat no fruit or vegetable grown above the ground without washing thoroughly." This will apply especially to locally produced products where they are likely to have no inspection.

More complete safety will be assured the consumer when a better understanding of the whole question is acquired by both the producer and the consumer. There will be without doubt stricter regulations regarding the marketing of sprayed or dusted food products. These will be possible and easier to meet because of discoveries of new washing practices and new methods of controlling the insect and disease pests of our crops.

Until adequate protection is assured, a safety measure would best include a thorough wiping and washing of fruit if the skin is to be eaten. This should be observed where the fruit is not known to have been washed in a commercial washer. Paring of fruit is considered a safety measure, especially the removal of the calyx and stem ends.

MISS HERBST: What will be the effect of the pending legislation on the producer?

Mr. Corbus: In a recent letter from Mr. R. G. Tugwell, Assistant Secretary of Agriculture, concerning the proposed food and drugs act, he says, "I feel sure you realize that the operation of the Department under the present law and the effect of pending food and drug legislation react to the benefit of the producer in maintaining consumer confidence in the safety of its fruit and vegetable supply."

A BOUT 25 years ago was the dawn of the

A BOUT 25 years ago was the dawn of the "newer knowledge of nutrition," when it became recognized that for health, in addition to protein, a source of energy in the form of protein, carbohydrate or fat, and a suitable supply of certain organic salts, it was also necessary

saits, it was also necessary to have a particular quality of protein and what are now called vitamins. More has been learned about the science of nutrition in the past quarter century than in any other period of the world's history. Nutrition Abstracts lists for the past year about 5000 articles on the subject. The development

of knowledge has, however, not been entirely beneficial in its application, which is certainLearning Is a
Dangerous
Thing

ly unfortunate considering that about fifteen billion dollars a year are spent for food in the United States alone. The public's enthusiasm for vitamins and minerals illustrates well that "a little learning is a dangerous thing." No advantage to the public health has been gained by clever advertis-

ing emphasis on the infinitesimal amounts in which vitamins occur in ordinary foodstuffs and the exploitation of the "vitamin conscious" portion of the population with costly proprietary foods and remedies of uncertain vitamin content. The popularization of the relatively recent and constantly changing

knowledge has also resulted in very little intelligent understanding of the facts.

George R. Minot, M.D., in The New England Journal of Medicine

# KNITTING YARNS-FEW ARE COLORFAST

Advice for Ladies Who Must Knit During Lectures

THE knitting craze has taken American women by storm, with the result that knitting needles are busily clicking in every community. Memories of the World War, when the knitting bag seemed to be the symbol of patriotism, will recall ludicrous examples of misshapen garments turned out by wellmeaning but inexperienced fingers. Today, however, one sees everywhere hand-knitted garments possessing the advantages of style, comfort, durability, and low cost, and women are happy in the discovery that their leisure hours can be made productive of such satisfying results. Yet many hours of work may result only in disappointment if a yarn is used that is manufactured with "fugitive" dyes which fade badly, one that shows roughness or inequalities in the knitting, or lacks springiness when stretched between the fingers.

Twenty-six samples of yarns comprising ten brands, the common types of Shetland Floss, Germantown Zephyr, and knitting worsted, in a variety of colors, were bought for Consumers' Research and tested for wearing qualities and for resistance to fading when exposed in a window toward the south. The results of these tests will be a surprise to many women who have been led to believe that the yarns made by those manufacturers having the largest displays, spon-

soring the biggest fashion shows, and publishing the most expensive-looking style books, naturally would supply the best quality yarns. The tests showed, on the contrary, that none of the brands could be generally recommended in all colors, and that only four samples out of the twenty-six selected at random showed really good resistance to fading. As expected, knitting worsteds showed superior wearing qualities; they were equalled by a few of the Germantown Zephyrs, whereas the Shetland Flosses were distinctly inferior.

It is strongly recommended that consumers make their own tests for resistance to fading of yarns considered for purchase by exposing small specimens in a southern window for a week or two. Part of the yarn sample should be kept covered with an opaque cardboard or paper in order to provide the necessary comparison with the part exposed to the strong light. A good dye will show very little fading after exposure as long as a month, while an inferior dye will fade appreciably in one or two weeks.

It is to be noted that the recommendations below are for the specific yarns and shade numbers mentioned; different shades and types of the product vary so much that it is not possible yet to draw any general conclusion as to any maker's brand from the test of a particular sample.

Of the twenty-six samples tested, we recommend the following which showed good resistance to fading and satisfactory wearing qualities:

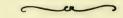
#### RECOMMENDED

Bear Brand (Ulmann Bernhard Co., Inc., 107 Grand St., New York City) Knitting Worsted. Red, shade 410. 27½c per ounce.

Good Shepherd (Shepherd Worsted Mills, Newton, Mass.) Fourfold Germantown. White, shade 505. 40c per ounce.

Sunlight (Marshall Field & Company, Chicago) Sunlight Ripple Tone. Blue-green, shade 4651. 22½c per ounce.

NUN'S Nomotta (T. Buettner & Co., Inc., 367 West Adams St., Chicago) Germantown Zephyr. Blue, shade 901. 35c per ounce.



# The Three Divine Gifts of Salesmanship What Are They?

The first of these gifts, it is said, is the power of forceful speech. This does not mean that one must be an elocutionist, nor hold a degree in English, nor be a gifted after-dinner speaker, but have the plain, old-fashioned gift of gab—a natural desire to talk.

And the second of the gifts is the power of amplification. The ability to make the haul of a four-inch minnow sound like the catch of a tarpon. The knack of taking a drab subject, say like lard, and painting a word picture until your auditor is moist-eyed with expectancy and frantic to slip his John Hancock on the dotted line.

But the third—and last—is Nerve! Plain, old, unmitigated gall, crust, guts, assurance. The ability to coolly walk in on soft 'uns or tough 'uns and make one terrific attempt to make 'em accept something in place of their hard-earned cash.

-From McClos-Key-Noter, McCloskey Varnish Co.

## FOOD FALLACIES AND NUTRITIONAL QUACKERY\*

Report of the Committee on Nutritional Problems

American Public Health Association

HE popular appeal, through the press and commercial advertisements, of matters relating to food and health has elicited wide popularization, and dissemination of information developed by scientific investigations in the field of nutrition. As a result, we have become as a nation "food conscious." The great popular demand for information about foods and dieting, together with the erroneous idea in many cases that nearly every disease and ailment can be cured by some system or other of dieting, has offered an unusually attractive opportunity for exploitation. During the last few years there has been an increasing amount of publicity, and exploitation of false and harmful statements foisted upon the public by dietary quacks, faddists, and so-called nutrition "experts." Some of them may be honest, but ignorant and misguided enthusiasts and fanatics. Many of them, however, are fakers, so-called "doctors," with little or no recognized professional standing, motivated by personal gain, who have selected this fruitful field for preying on the public.

Notwithstanding the large amount of popular scientific knowledge available in nutrition, the successful preying on the public by faddists and quacks has assumed alarming proportions. Influenced by promises, fanciful appeals to fear, and suggestion, many choose the courses offered by the faddist in preference to the advice of reputable authorities. Unfortunately, a large proportion of the population is unable to discriminate between the claims of the charlatan or ignorant faddist and those of investigators whose scientific contributions and knowledge have gained for them the position of outstanding authorities. Even physicians, nurses, teachers, medical students, and dietitians are numbered among the victims. Aside from mulcting thousands who can ill afford it, the exploitation of these dietary notions is a menace to public health, causing serious injury as a consequence of relying upon these false dietary systems for alleviating

<sup>\*</sup> Reprinted from American Public Health Association Year Book, 1935-1936.

their ailments instead of seeking the timely aid of reliable medical assistance.

The most common subjects of the appeal which these quacks make are food combinations and incompatibilities. Based on entirely false representation, vicious systems of dieting which do much injury are given in books and pamphlets sold under high pressure salesmanship.

One of the most common and extensively proclaimed nutritional fallacies is that proteins and starches are incompatible and should be separated into distinct and separate meals. Based largely on this idea a system of dieting has been developed and featured in books and syndicated newspaper columns. A monthly magazine is devoted to this system. It is maintained that because starches require an alkaline medium for their digestion and proteins an acid medium, an antagonistic effect is developed when both are taken together which seriously interferes with the digestion of each of these classes of foods. One can look in vain through the writings of authorities in textbooks and journals for any scientific experimental data in support of this idea. The proponents ignore the fact that a large proportion of our staple articles of food contain both starch and protein. Adherence to this system would necessarily eliminate from the diet practically all products made from cereals and grains, such as bread, crackers, macaroni, cakes, pastries, etc. It would also exclude potatoes, beans, peas, and many other important foods. The cereal grains, wheat, rye, barley, oats, and corn, range in their protein content from 9 to 12 per cent or higher, and contain also about 60 per cent starch. Rice contains about 7 per cent protein and upward to 80 per cent of starch. Beans and peas are rich sources of both protein and starch, containing from 20 to 25 per cent protein and 40 to 50 per cent starch. Chestnuts range from 9 to 10 per cent protein and 20 to 30 per cent starch.

This absurd system would ban the time honored combinations which for generations have been recognized as wholesome and healthful, such as meat and potatoes, bread and milk, bread and cheese.

Investigators and authorities in the field of nutrition are

practically unanimous in the opinion that there is no incompatibility between starches and proteins in the diet.

Faddists have hit upon the idea that we should not eat starches and proteins at the same meal because starch digestion is interrupted in the acid stomach, acid being essential to peptic or stomach digestion of proteins. This is a fallacy. There is no significance in this interruption. The cat, dog, and cow have no starch-digesting ferment in their saliva, but they thrive on foods rich in starches. All their starch digestion takes place after the food has left the stomach and reaches the small intestine. Nature did not put these animals at a disadvantage in this respect. *McCollum and Becker*.

Much of what is said by food faddists relative to combinations of protein and carbohydrate is fallacy without any basis in scientific study. *Fishbein*.

It has been shown that a mixture of carbohydrate and protein foods is discharged from the stomach in shorter time than protein alone, indicating that

... the addition of carbohydrate to the diet accelerates digestion and the discharge of the gastric contents. Cannon.

Studies by Rehfuss, Hawk, and others on human gastric digestion in the stomach involving more than 1,000 studies on 200 normal men, in which a great variety of protein and starch combinations was used, failed to produce any evidence whatever of the incompatibility of these two classes of foods. In order to meet criticisms of the food faddists, that different results would have been obtained had the studies been made with chronic invalids instead of normal individuals, Rehfuss has more recently extended the investigations to include a cross-section of medical invalids representing almost every variety of chronic illness encountered in a medical work service. Meat was used to represent protein, and potatoes to represent starch. The results of these studies involving hundreds of observations and representing a year's work in medical service, again demonstrated

. . . the absolute inaccuracy of the statement that proteins and carbohydrates are incompatible in the stomach. . . . There is no evidence either in the literature or in my investigation

to lead me to believe that proteins and carbohydrates are incompatible in the stomach. The danger of such teaching based on a lack of scientific evidence is manifest, and while it may be true that many individuals overeat and are presumably better by a reduction of carbohydrates, the unqualified acceptance of such a teaching can lead to the occurrence of serious malnutrition as well as to a lighting of tuberculosis and old infections.

We are also told to eat but one kind of starch at a time and one kind of protein. This is obviously so devoid of any scientific reason that it merits but a mere passing reference. All starches yield on digestion the same simple sugar, glucose. The end product is the same irrespective of the source of the starch. As to proteins, to eat one kind at a time is just what one should not do. Proteins differ in their nutritive value depending on their amino acid composition. Some proteins are lacking or deficient in certain amino acids which are nutritionally indispensable.

Nutritionally deficient or incomplete proteins should be supplemented with other proteins so that the amino acids lacking in the one will be supplied by the others in order to have an assortment of amino acids adequate to meet the requirements of the body. For example, the endosperm proteins of the cereal grains in general are deficient in lysine and trytophane, two amino acids indispensable for growth and normal nutrition. The proteins of meat, milk, eggs, and nuts, on the other hand, are excellent sources of these amino acids. The value of the cereal proteins in the diet is enhanced by inclusion of the latter protein foods in the diet. Instead of an incompatibility we have a supplementation.

Acidosis is a term that is frequently and effectively used by the purveyors of food fallacies in the exploitations of their books, literature, and dietetic systems. Nearly all diseases that afflict mankind can be found enumerated as the result of acidosis caused by eating "acid foods." Elaborate menus are offered for "alkaliforming" meals, and systems of dieting which can be had by purchasing their books or enlisting their services and special courses. The claim that acidosis, with all its dire effects, will result from eating bread and meat or certain combination of foods, such as

proteins and starches, or fruits and starches, is entirely unsupported by scientific evidence.

Acidosis is usually a condition attending certain diseases, such as diabetes or kidney diseases, involving a faulty metabolism of the body.

There is no evidence that a preponderantly acid diet is in-

jurious.

That the body reaction remains practically unaltered even when a wide range of amount of acid or base is ingested has been pointed out by Henderson.

McCollum and Hoagland found that long continued excess of acid-forming elements in the diet did not lead to any appar-

ent injury.

The Committee on Foods of the American Medical Association in one of its recent decisions states that

... acidosis is a name for a morbid condition of diminution in the reserve supply of fixed alkali in the blood and body fluids. Most people have no conception of the true meaning of the word and are quite likely to confuse it with gastric hyperacidity or "acid stomach," or to conceive of it as "acid blood," a condition which would be incompatible with life. The term "acidosis" is so little understood that its use in any advertising except that restricted to the medical profession is misleading and consequently disapproved.

As stated by Stone, the term acidosis has become a popular

fancy.

... The belief that acid-ash foods are responsible for a variety of common symptoms such as gastric hyperacidity, lassitude, biliousness, acid mouths, headaches, nephritis, and high blood pressure carries one far afield... The importance of the acid-ash diet as a factor in the etiology of disease has been overestimated.

Mariott believes that "... acidosis is a rare condition and there is no good evidence that the regular taking of large amounts of alkaline-ash foods is of any special benefit." In his experience there is no evidence "... that an alkaline-ash dietary can effect the reduction of established arterial hypertension."

Arthritis is a disease which is commonly emphasized as resulting from improper food combinations and which readily yields to the particular dietetic system which is exploited. We are told to omit "acid fruits and vegetables"; to partake of only one type of food substance at a meal; to alter the acid-base balance of the diet; to use a low protein and carbohydrate diet. Carbohydrate restriction is based on a dietary rationale, the correctness of which has not been satisfactorily demonstrated by scientifically controlled experiments. The commonly so-called acid fruits, such as oranges, tomatoes, and grapefruit, contain weak organic acids which are easily oxidized in the body. These acids are chiefly present as salts of inorganic bases which are left in the blood as alkaline carbonates and really serve as available alkali to the body. The fallacy and inadequacy of these claims have been recently pointed out by Burer.

One need make no conscious effort to maintain a basic diet in an arthritic person any more than in a normal one... The prescribing of a low protein diet is a relic from the days when rheumatoid arthritis was confused with gout. There is no justification for the limitation of proteins in the dietary of a patient with rheumatoid arthritis. There are many reasons why it should be liberal.

Another fallacy which finds a prominent place in the armamentarian of the nutritional quack is that acid fruits should not be eaten at the same time with carbohydrate foods, including breads and cereal products, potatoes, squash, and sugars of every kind. These foods, we are reminded, require an alkaline medium for their digestion, and without the alkaline reaction of the saliva they would never be digested at all. This view ignores the well-known fact that only a part of the carbohydrate digestion occurs in the mouth and stomach as a result of the action of ptyalin in the saliva, and that there are active amylolytic enzymes in the intestines where carbohydrate digestion proceeds to completion. In fact, starch digestion can proceed favorably in a medium that is practically neutral. The relatively small amounts of the weak organic acids in fruits can have little or no significance in any

interruption of starch digestion in the stomach where the hydrochloric acid of the gastric juice is many times stronger than the fruit acids.

Emphasis is laid by "experts" and exploiters of preparations offered for sale on the claim that the use of common table salt is responsible for Bright's disease, cancer, tuberculosis, high blood pressure, and other diseases and ailments.

The surmise that salt has some relation to high blood pressure has influenced to some extent the treatment of this disease. However, the work of O'Hare and Walker lends no support to such a view. No relation was found to hold between blood pressure and the chlorides of the blood and plasma, and no effect on the systolic and diastolic levels was observed during wide variations in the amounts (0.5 gm. to 4 gm. daily) of salt taken in high pressure cases without nephritis. McLester, in a series of controlled observations with patients having hypertension, was unable to note any improvement when a so-called "salt-free" diet was used. He believes, however, that in cases of hypertension complicated with nephritis the salt intake should be restricted "to that contained in the food as it reaches the table." While the avoidance of large quantities of salt in the diet of patients suffering from certain diseases may be advisable, there is no evidence that salt in the quantities generally used in the diet results in the development of such diseases as mentioned or is attended by any harmful effects

We are told to avoid the use of dark meats or to limit our meat consumption to fish and fowl. The statement that white meat is less harmful than dark meat has no basis in fact. This belief goes back to the days when gout was confused with other forms of arthritis, and that foods rich in purines yield uric acid with resulting gout, rheumatism, and acidosis. With the exception of the glandular organs, liver, sweetbreads, and kidneys, dark meat contains no more purine bases than does white meat. Fish and fowl contain as much, or more, uric acid-forming bases as beef, veal, lamb, and pork.

It has been proved by numerous investigators that the white of eggs is much less digestible when raw than when cooked. There is even evidence that raw egg white when fed to experimental animals will invariably produce toxic symptoms. Nevertheless, it is still not uncommon to find physicians and nurses prescribing raw eggs for invalids in the belief that they are more digestible and more easily assimilated than when cooked.

Among the dicta of faddists and food charlatans are many so fanciful and absurd that to the person of ordinary intelligence they need no refutation.

As illustrations of such fallacies may be mentioned the following: Tomatoes cause cancer; meat makes one sensuous and belligerent; mixtures of incompatible foods explode in the stomach; fish is a good brain food; garlic "purifies" the blood; cream should not be eaten with lobster, strawberries or pickles; fish and celery should not be eaten together; "dead foods" should be avoided in the diet.

Many different systems of dieting and treatments are advocated for weight reduction, some of which are merely scientifically unsound; others are positively harmful and dangerous. Many, eager to conform to the current prevailing fashion of being slender, adopt short-cuts to reduction advertised by food promoters and those interested only in their own personal gains, have done themselves harm, bringing on weakness, nervous irritability, and anemia. Particularly to be deprecated is the use of salts and dangerous drugs. In reduction treatment the first consideration is curtailment of calorie intake, with the object of accomplishing a gradual loss of weight without sacrificing the amount of protein, vitamins, and mineral salts required for normal body needs, nor even of the calories needed as a source of energy for body temperature and for production of work. Many reducing menus are erroneously based on elimination from the diet of individual foods, such as potatoes, rice, cereal products, and butter. In order to assure an adequate balance of food factors essential for health and normal nutrition, it should be remembered that it is not the kind of food that should be restricted, but rather the quantity. As Mendel has aptly stated, "Sanity in diet calls for moderation in eating rather than exclusion of any wholesome food. Even the slenderest persons need some energy for their daily undertakings."

It is only by a process of education that the public can be

enabled to discriminate between the fallacies proclaimed by the food faddists and quacks, and the sound principles of nutrition established by reliable investigators. Public health officials are in an excellent position to render a great service in educating the general public along these lines, and in waging a concerted attack on the operations of these enemies of public health.

There is plenty of reliable literature available which can be effectively used in conducting such a campaign of education.

(Numerous footnote references have been omitted in reprinting the foregoing article.)



### Business Men, Please Note!

Consumers must often wonder why some business man somewhere does not devote all his energies to the making and distributing of the most economical, safe and wellengineered product possible. True, by this method, he would have less at his demise to bequeath to art museums, memorial halls, and to the prolongation of the era of grand opera. Speaking for consumers, we believe it is safe to say that most of us will be delighted to receive such benefits as can accrue to us by good, technically expert management of factories, in the lifetimes of their managing executives, in the form of unqualifiedly honest and honestly-advertised consumers' goods of the best possible quality, distributed as cheaply as possible. Will not some magnates of industry consider and apply themselves to this problem? Surely, consumers availing themselves of such services will provide as enduring satisfactions as the more conventional and dramatic benefactions customary to men of means.

## MEN'S SUITS AND SUIT FABRICS

Advice on Purchase and Use

In a group of six men's suits bought and tested by Consumers' Research and ranging in price from \$22.50 to \$65, one of the winners was a \$22.50 suit. The one low-priced suit which acceptably did meet standards of construction, fit, and material was made by Richman Brothers Co. which manufactures in Cleveland and distributes clothes from the factory by mail and through its own stores and agents.

As with automobiles, shoes, silverware, and many other commodities, so with men's suits—a high price does not necessarily represent superior value, and may in fact represent a poor one. When the high price does indicate a difference, it often is one merely of exclusiveness rather than of tangible quality. A \$50 suit as compared with a \$25 suit will generally not be made of more durable fabric nor be better styled, but it will have better trimmings and tailoring and on this account will probably give somewhat longer wear. Where fineness of finish is important to one's personal satisfaction or prestige, the \$50 suit is the more desirable garment, but where serviceability, good fit, and moderately high quality of tailoring or finishing are sufficient considerations, the \$25 suit will serve better.

When the consumer undertakes to secure a new suit he finds himself pretty completely at the mercy of the seller. One procedure which will all too often prove disastrous to the suit buyer is to deal with an unknown concern selling clothes through canvassing salesmen. The following quotation from a reply by C. B. Bond to a complaint by the Federal Trade Commission will serve to show what one is sometimes up against. (Note especially the last two sentences.)

"Answering your complaint against C. B. Bond trading as World Woolen Company, et al, Docket No. 2100, will say that the World Woolen Company and C. B. Bond Company are no longer in business, having assigned for the benefit of creditors all assets of the above mentioned concerns on or about April 4, 1933. I am enclosing notice of auction sale taken from the New York American. Under the circumstances it seems as though there would be no benefit gained on my part in making a denial of any or all the complaint, however, will say that the complaint as a whole is caused directly by the type of salesmen who engage in this particular means of livelihood. Since liquidating the World Woolen Company and the C. B. Bond Company I have started with capital furnished by friends of mine, a business under the trade style name of Manhattan Clothing Company as you will see by this letterhead. . . . I know that the average salesman, in fact, 99% of them operating in the direct selling field, misrepresent, exaggerate and make false statements in order to close a sale and secure the deposit which is their commission. We try in every way to keep the business as free from this sort of thing as possible, but in all my experience and from conversations I have had with my competitors, it seems that this is a fault which it is impossible to correct. . . ."

The Federal Trade Commission has issued orders of restraint against several similar companies for misrepresenting their suits as "100% Pure Wool," "100% Virgin Wool," and "100% Pure Worsted," and as being made to measure, when in fact they consisted in large part of shoddy and were readymade rather than custom-tailored. Sizing of these suits is inaccurate and the seller is little concerned with the welfare of his customer; the fit will almost certainly be much worse than that of the usual ready-made suit bought in a retail store. Companies of this type are too numerous to list by name here. They should not be considered at all by the consumer who is in search of honest value. Those who have bought these suits have too often found afterwards that they fell far short of the quality and workmanship claimed for them.

When it comes to judging a fabric merely from the appearance and feel, even tailors of long experience make mistakes. The desirable qualities of a fabric are well enough known in the textile trade, but progress in the direction of informative labeling, so much needed by the consumer, has been and continues to be very slow indeed. Though attempts have been made to interest Congress in a truth-in-fact labeling law, the use of a label on a woolen fabric continues to be entirely optional with the manufacturer. If he does put on a label it is supposed to comply with the following simple requirements adopted by resolution of the Board of Directors of the National Association of Wool Manufacturers: "100% wool" and "all wool" are synonymous terms and may be utilized only on fabrics made entirely of wool, with a two per cent tolerance for foreign mat-

"The term 'wool' when used without qualification may apply only to fabrics sometimes known as 'commercially all wool,' containing not less than 95% of wool by weight, with a 2% tolerance.

"The use of the word 'wool' in reference to fabrics containing less than 95% of wool by weight is prohibited unless a guaranteed percentage of wool by weight is stated."

In spite of the appearance of accuracy and definiteness given in these specifications for labels, the consumer should note that they are, nevertheless, non-informative and misleading, for "wool" may mean anything from

virgin wool to 100 per cent shoddy, or reworked wool of any grade or previous use or condition.

In the absence of more detailed information, the consumer must learn to do the best he can for himself. If he desires long wearing qualities, he should learn to select a fine high-twist worsted instead of a woolen fabric (but serges and the hardestfinished worsteds tend to become shiny with wear). He should, moreover, be able to distinguish the preferred fabric by its appearance and feel. Worsted yarns are made of longer fibers and therefore in general have higher tensile strength and better wearing qualities than woolens, made of short fibers, uncombed. Whether the wearer selects a worsted (various types include hard-finished, unfinished, and tropical worsteds, worsted cheviots, and serges) for its wearing quality, or a woolen (such as flannels, home-spuns, wool cheviots, tweeds, broadcloths, cassimeres) for its softer appearance and feel, he should, if he desires good service, avoid a sleazy and loosely-woven fabric. Such loosely-woven fabrics are to be distinguished by looking through them at a strong light. Napped fabrics will not give as satisfactory wear as unnapped fabrics because the nap rubs off and changes the appearance of the cloth and in most uses will give it a distinctly uneven appearance a long time before the cloth itself is worn through.

The consumer should examine a suit for tight sewing, carefully done, for well-fitted linings, smooth seams, and firmly secured buttons. Poorly tailored garments are likely to pucker at the shoulder seams and elsewhere. At the time the suit is altered, it may be advisable to have the pockets, which will be subjected to the most severe wear, replaced with a heavier material. A double thickness of cloth sewed to the lower back edges inside the trouser legs will serve to hold the trouser material itself away from the heels of the shoes and will protect the lower edges of the trousers from the rapid wear due to rubbing that usually occurs there. This addition does not show and will give a marked increase in the life of the trousers for most people.

Our consultant considers that for economy it is better to have enough suits so that by wearing them in rotation each suit can hang in the closet two or three days between wearings. By this practice, clothes will require less pressing, because the fabric will have time to regain its proper shape after use (which it can do on account of the natural elasticity of the wool fibers). In this way cost of pressing and the harmful effects which are frequently the result of it can be lessened. Since wool fibers are injured by heat and chemicals, as well as by the severe physical treatment to which clothes are subjected when pressed and dry cleaned, it is better to reduce the amount of pressing and dry cleaning of garments to a minimum. The economy to be achieved in this way is a double one, due to the lower cost of pressing and the increased life of the suit, and will be substantial in the course of a year.

The following are definitions

of terms commonly used:

Warp — fabric yarn running lengthwise when in the loom. Frequently referred to as "ends."

Filling—Fabric yarn running crosswise of the loom. Frequently referred to as "picks." Twist—number of turns per

inch in a twisted yarn.

Count of yarn—number of yards
of yarn in one pound under
standard moisture conditions
divided by 560 for worsteds

or 1600 for woolens.

Tensile strength—ability of an inch-wide strip of a fabric (in the warp or in the filling direction) to withstand evenly distributed tension tending to tear it apart—measured in pounds.

Two-ply—used of yarns wherein two yarns are twisted to-

gether to form one.

Crocking—rubbing off of the dye on to other material with with the fabric comes in contact.

Six suits bought by Consumers' Research were tested for quality of fabrics and were examined for trimmings, workmanship, and fit. Wearing qualities were determined by tests on an abrasion machine designed by Consumers' Research. All suits

were three-piece, consisting of coat, trousers, and vest. Of these, we recommend the three which follow.

#### RECOMMENDED

The Richman Brothers Co. (1600 E. 55 St., Cleveland, Ohio, and retail stores in 57 cities) Lot No. 3419. \$22.50. Extra trousers \$6. Suits are half lined. Same price for all suits. There is an additional charge of \$3.50 when suit is cut specially to measure. Suits may be bought from the factory by mail and from company retail stores and agents. There is evidence that a genuine effort is made by the company to insure satisfaction to the consumer. Suits are conservatively styled. ¶Examination of the suit showed it to be largely machine-tailored, neatly and cleanly finished, supplied with perspiration shields, and lined with rayon which the company guaranteed to mend or replace, if necessary, within two years. ¶ Fabric woven of twoply good quality worsted yarn in both warp and filling. Weight of fabric, medium, 9 oz per square yard. Tensile strength high and balanced as to warp and filling; warp 104 lb, filling 92 lb. Resistance to abrasion in Consumers' Research's test, satisfactory. Fabric of good quality and judged by Consumers' Research's textile technician to represent good value. I Fit of suit upon completion of ordinary alterations was found good. It is expected to provide good wear and to keep its shape. One of the best buys of the group of six suits.

B. Kuppenheimer & Co. (415 S. Franklin St., Chicago) Cloth No. 6447. \$40. Extra trousers on special order approximately \$10. Suits may be bought in clothing and department stores. ¶ Examination of the suit showed it to be both handand machine-tailored and about average in finish and construction. Rayon lining used throughout. Lining of the vest not smooth because of extra fabric allowed for alterations showing through at the shoulders. Trousers closed at front with zipper. ¶ Fabric woven of good quality worsted, two-ply warp, and singleply filling. Weight of fabric, heavy, 11 oz per square yard. Tensile strength, warp 113 lb (exceptionally high because of high twist yarns), filling 83 lb. Resistance to abrasion in Consumers' Research's test somewhat below average for group of six suits tested. Fabric was good quality, hard-finished worsted; might have been better with two-ply instead of single-ply filling. ¶ Upon completion of necessary alterations fit of suit was found good.

Hickey-Freeman Co. (1155 N. Clinton Ave., Rochester, N.Y.) Cloth No. 52107. \$65. Extra trousers \$12.50. Suits may be bought in clothing and department stores. Prices ranged

from \$50 to \$65 for domestic fabrics, and from \$65 up for imported fabrics. ¶ Suit tested was the best tailored and the most fully hand-tailored suit of the group, in addition to showing care in the assembly operations. Workmanship of necessary alterations was inferior to the original tailoring. Good quality rayon lining (silk lining used in some ¶ Fabric woven good quality single-ply woolen yarns. Weight of fabric, medium, 8.5 oz per square yard. Tensile strength low but wellbalanced, warp 60 lb, filling 61 lb. Resistance to abrasion in Consumers' Research's test. satisfactory. ¶ Upon completion of necessary alterations, fit of suit was found good. Suit was well styled and patterned and gave good appearance.

In addition to the study of six suits, four classes of fabrics used by the A. Nash Co. which sells made-to-order garments were examined and rated. The scope of the study did not permit the purchase of suits made from these fabrics. Of the four classes of fabrics examined, we recommend the two following.

A. Nash Co. (1916 Elm St., Cincinnati, Ohio) \$27.50 (for the finished suit on a made-to-order basis). Fabrics tested averaged in weight 9 oz per square yard (medium) and were of good quality. Rayon decorations (i.e., wool and rayon mixture) were used extensively; mohair was mixed

with the wool in some fabrics.

A. Nash Co. \$33.50 (for the finished suit on a made-to-order basis). Weight averaged about 9.1 oz per square yard (medium). While there was much variation, all the fabrics tested in this group were acceptable on the basis of wool quality, count, twist, weight, and construction. Rayon decoration widely used.

## Suitings and a Lining Fabric

#### RECOMMENDED

Vermont Natives Industries (Bridgewater, Vt.) \$2.50 per yard for 56 in. width. Weight, medium, about 8.5 oz per square yard. All-wool fabrics.

Biltmore Handwoven Homespuns (Biltmore Industries, Inc., Asheville, N.C.) \$2.85 and \$3.50 per yard for 28-30 in. width. Weight, medium, about 8.5 oz per square yard. Good quality all-wool fabrics. Some mohair and kemp wool used. No rayon used. Attractive dyeing. Recommended particularly for men's and women's tweed suits.

Harris Tweed (S. A. Newall & Sons, Stornoway, Scotland: distrib. in the United States by Uhlig & Co., 116 E. 27 St.,

New York City) \$2.60 per yard, with duty of 50c per yard plus an ad valorem duty of 50% included. 28-29 in. Weight, heavy, 13.5 oz per square yard. Weight recommended for topcoats but also usable and much worn for suits. High tensile strength, and good resistance to abrasion in Consumers' Research's test. Fabric is handwoven, well constructed, attractive, keeps its appearance well until worn out, and may be expected to give exceptional wear in due proportion to the high cost of the fabric.

Celanese Lining (Celanese Corp. of America, 180 Madison Ave., New York City) About 95c per yard. Sometimes sold under the trade name of Earl-Glo (which is also used for other fabrics). Woven from chemically made fibers (filaments composed of an acetic ester of cellulose). Tensile strength of Earl-Glo, warp 66 lb, filling 40 lb. Fabrics of this type are smoothsurfaced and so slip on and off easily; they absorb but little moisture. Will give good service and prove to be more durable than the silks sometimes used for lining.

## The Deadly Lollipop Stick

Many parents who would ordinarily forbid a child to run about with a pencil or other sharp object in his mouth do not hesitate to allow him to do this with a lollipop, not realizing the great danger involved.

I believe that lollipops with sharply pointed sticks should be forbidden

at all times.

<sup>-</sup>William A. Schonfeld, M.D., reporting the death of a little boy from such an injury, in the Journal of the American Medical Association.

## TESTS OF NECKTIES

Urbanites Must Wear Them; Others May

THE careful purchaser of a necktie should examine it to see that it has those elements of construction that will give it good appearance and lasting good shape. A well-made necktie is cut full and usually shows four or five folds of fabric at the broad end and is fastened loosely by hand with a single rip-cord, which holds the tie and interlining together, but allows freedom of movement between the two. This type of construction is called "resilient," a designation which is often to be found on the label of the tie. By the very nature of the process of making up the tie, all ties of resilient construction must be hand sewn. A good tie may or may not have a lining, but it is most important that it should have an all-wool interlining which has been "cut on the bias," so that the yarns run at an angle of approximately 45 degrees with the length of the tie. The interlining can usually be brought into view for examination by lifting up the folds at the end and turning the tie partly inside out. To provide greater thickness, the interlining is commonly in two pieces, one of which is much larger than the other. A lining, if present, commonly extends to a point a few inches from each end of the tie.

"Resilient" construction should be distinguished from the common "rigid" construction of the poorly wearing machine-made tie, which usually has but three folds at the end and is stitched together on a tape. The interlining of a "rigid" construction necktie is inserted loosely and is usually partly or entirely of cotton "cut on the straight," which wrinkles far too easily and is non-stretchable and so permits the shape of the necktie to be spoiled by the strains to which the tie is subjected, in tying and in use, after a few knottings. The necktie fabrics of both types of construction are cut on the bias in two pieces to make the two ends which are joined together at the neck region, and then sewn together by machine.

All of the neckties tested were either of "resilient" or of "rigid" construction, except for one cotton mohair tie which was selffolded so as to make four thicknesses and thus eliminate the necessity of an interlining—a construction which, in this instance, proved satisfactory. A tie may be tested for desirable "stretchiness" by grasping it at two points with the thumb and forefinger of each hand and gently pulling in opposite directions along the length of the tie. This test, which anyone can carry out for himself, after once trying it out on a poor and a first-rate tie, reveals at once by its lack of "stretchiness" if the necktie is of "rigid" construction.

Of the fabrics used for ties, baratheas, heavy poplins, crepes, satins, and twills keep their good appearance longest. Weighted silks and fabrics woven with long floats, such as some satins and jacquards, are undesirable if long service is expected from the tie; and light shades will in general fade earlier or more evidently than will the darker colors.

In a practical wearing test of three weeks' duration, to which all the neckties in the test were subjected, some of the poorer ones wrinkled badly and lost shape entirely, so that they would have been practically unwearable in the judgment of most users, while some of the better ones showed scarcely a sign of wear. The following comment by one of those engaged in the wearing test is illustrative of the type of treatment to which the ties were subjected: "We wore this around our neck for twenty days steadily-sometimes 18 hours a day. We subjected this to rainy weather, drops of orange drink, soda pop, and occasional drops of milk and soup: yet this tie holds color, does not show spots [after dry cleaning and remains in situ when collared."

The neckties ranged in price from 10 cents to \$1.65. The test showed quite clearly that none of the very cheap ties could be recommended on the basis of quality; nor would it have been possible to rate any of them highly on the basis of service life per cent of purchase price. The "rigid" construction and the cotton interlinings apparently made them a poor buy even at the very

lowest prices.

The neckties ranged in length from 43 inches to 47.5 inches, the average being slightly over 46 inches. Not only were the shortest ones substandard in length, but they were also skimpily cut and poorly shaped. All were subjected to dry cleaning and, for the most part, were found to perform satisfactorily under this treatment. The test showed that the more poorly constructed ties did not press satisfactorily and that they did not regain their original shape after they were dry-cleaned. In the wear test all of the "rigid" construction ties proved unsatisfactory and all of the recommended ties were of "resilient" construction.

#### RECOMMENDED

Beau Brummell, Rayon Jacquard Fabric (Weisbaum Bros. Brower Co., 424 E. Fourth, Cincinnati) 87c. Well made. Had resilient construction, which is desirable. No lining. Interlining two-piece, wool. Made an attractive knot. Long satin floats required care in handling. Maintained shape well but wrinkled slightly in wearing test.

Botany, Wool Challis Fabric (Botany Worsted Mills, Passaic, N.J.) \$1. Well made. Resilient construction. No lining. Interlining two-piece, wool. Made attractive knot. Maintained shape and smoothness well in wearing test.

Botany, Wool Flannel Fabric (Botany Worsted Mills) \$1. Well made. Resilient construction. No lining. Interlining two-piece, wool. Made a thick, attractive knot. Maintained shape and smoothness well in wearing test.

Burton's Poplin Fabric, Pure-Dye Rib Silk (Distrib. H. King & Co., N.Y.C.) 94c. At some stores, \$1. Resilient construction. No lining. Interlining two-piece, wool. Made attractive knot. Maintained shape and smoothness well in wearing test.

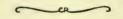
Arrow, Silk Jacquard Fabric (Cluett, Peabody & Co.; distrib. Marshall Field & Co. Chicago) \$1.50. Resilient construction. Lining, white rayon. Interlining two-piece, wool. Maintained shape well but wrinkled slightly in wearing test.

Kerry Poplin Fabric, Silk-Wool (McCurrach Organization, Inc., 411 Fifth Ave., N.Y.C.; distrib. Marshall Field & Co., Chicago) \$1.50. Resilient construction. No lining. Interlining two-piece, wool. Made attractive knot. Maintained shape well but wrinkled slightly in wearing test.

King's Guard, Silk Print Fabric (Cohan, Roth & Stiffson, 136 Madison Ave., N.Y.C.; distrib. Marshall Field & Co.) \$1.50. Resilient construction. No lining. Interlining two-piece, wool. Maintained shape well but wrinkled slightly in wearing test.

Londonderry, Fancy Rayon Satin Fabric (Kramer - Brandeis, Inc., 159 Madison Ave., N.Y. C.; distrib. John David, Inc., N.Y.C.) \$1.65. Resilient construction. No lining. Interlining two-piece, wool. Made attractive knot. Maintained shape well but wrinkled slightly in wearing test.

Real Silk, Pure-Dye Silk Jacquard Fabric (Real Silk Hosiery Mills, 611 N. Liberty, Indianapolis) \$5.50 for 3. Well made. Resilient construction. No lining. Interlining two-piece, wool. Made attractive knot. Maintained shape well but wrinkled slightly in wearing test.



Attention, Suckers! If the second in mind a feature in one of our products which is a remarkable talking point and very greatly breaks down sales resistance, but which in actual use is of little value. As survey would probably show that the average customer would want this feature eliminated, while the elimination of such a feature would greatly retard sales.

-A Manufacturing Executive in Product Engineering

## TESTIMONIALS, C. O. D.

Some Light on Big Names in Advertising

By

ALVA JOHNSTON

HE origin of the modern, sophisticated testimonial is difficult to trace. Some authorities give the credit to J. C. Hommanns, Jr., who in 1919 obtained endorsement for the Corona typewriter from authors and war correspondents, but these endorsements were not quite in the modern mode. They fall in four particulars—first, they were true; second, they were signed by actual users of the typewriter; third, they were written by those who signed them; fourth, no cash was paid for them. One of the later Corona endorsements, which did have the modern touch, was that of Jack Lawrence, sports writer, into whose typewriter Dempsey dived when Firpo knocked him out of the ring. Lawrence testified that, after he had carefully picked Dempsey out of the keys, the machine ran better than ever.

Lew Fields, Sam Bernard, David Warfield, and George Arliss endorsed Murads in 1905, but they smoked Murads, and therefore have no place in the modern testimonial racket. Today it is only the moral coward who smokes, eats, wears, washes with, sleeps on, rides in, or tells the time by, the thing he endorses.

The testimonial bedroom came in as early as 1921. One of the first of the Peeping Tom advertisements was Irene Castle's own boudoir which the noted dancer said she had never seen. Scores of fraudulent bedchambers have since been thrown open to the magazine-reading public as the sleeping quarters of screen stars and upperworld matrons. Recently the fake bathroom has proved a still more effective device for exploiting the peeking instinct, but the leading bathroom forger of the country has been lured away from the testimonial business to produce his gems for the movies.

Six or seven years ago the endorsers were nearly all professional people, and testimonial wangling, as it is called, was a specialty of the theatrical press. The star who signed was sure of compliments in the dramatic notes. Later the technique of testi-

monial wangling was broadened to include unkind words for non-signers. The puff-and-slam method was well developed at Hollywood, where the endorsements were partly controlled by the fan magazines. An obstinate non-endorser is likely to find himself or herself the subject of a "human interest story." "Human interest" is a technical term. To offer in Hollywood to write a "human interest" story about a star is the ugliest form of intimidation, a blacker thing in its way than threatening "to tell the truth."

Six years ago the modernization of the testimonial was completed by Pond's. Directed with audacity, tact and imagination, backed up by a well-filled war chest, the Pond's cream campaign made endorsing not only respectable but glamorous. Headed by two queens, a score of princesses and many noted American society women, Pond's endorsers became the most exclusive set in the world, a feminine Order of the Garter of the Bath. Women angled for a bid from Pond's as for presentation at court. In the Pond's campaign the reactions of the masses were studied scientifically. The testimonial became a department of Behaviorism. The testimonial instinct was found to be a thing that we get from the monkeys—a hunger for leadership, the fear of going wrong unless we patterned ourselves after accepted models.

Early in the Pond's campaign, society reporters were called in to divide American aristocracy into two classes—the \$1,000 people and the \$500 people. Women, who possessed personality and Social Register acquaintances, were engaged as wanglers. It was a heartbreaking work at first. Appointments were refused; letters were thrown into the waste basket. Soon the important discovery was made that preliminary obstacles can be overcome in a surprising number of cases by the careful greasing of social secretaries. It was also found necessary to buy useful information and to split commissions with relatives and friends of the prospective endorser. Sometimes weeks of work and much money were spent to discover the prospect's weakness, whether charity, millinery, reckless at bridge or whatnot. It was found in some cases that the prospect would be ripe for a testimonial on or after the 20th of each month, as her allowance was always exhausted by that date. In other cases, through inside information or connivance, it was possible to synchronize Pond's offer to the prospect with a begging letter from the prospect's favorite charity.

The strongest appeal of a general nature is the address to the conscience of the prospect—the argument that she is a leader, that she is moral force, that she is looked up to, that she has certain definite responsibilities to the public; and that, therefore, when admirable preparations like Pond's appear on the market, it becomes her duty to let the masses know about them. Noblesse oblige. Other great ladies on both sides of the Atlantic had not shirked their duty. Besides, \$1,000 has many uses. Yes, \$1,000 is the top price, madame! The company could not pay a cent more. One thousand dollars is absolutely the top, so help me!

One of the first signers was Mrs. O. H. P. Belmont. There were wild scenes at headquarters when the wangler came in waving this coveted autograph; work stopped; everybody gathered round and cheered the wangler; three executives kissed her. Mrs. Belmont was a \$1,000 name, and she endorsed her check over to the Woman's Party to be used in the movement to abolish the Republican and Democratic Parties and divide the country politically into Men and Women. Other wanglers, amid cheers and congratulations, brought in Mrs. Cornelia Biddle and Julia Hoyt—\$500 people. A foray on Chicago produced Mrs. Marshall Field, Sr. Operations in Europe resulted in the Duchesse de Richelieu and Lady Mountbatten.

Queen Marie was a bargain. She endorsed for \$2,000, two silver boxes and a miniature of herself by de Laszlo. She later explained that she was in need of about \$2,000 for a donation for a day nursery at Bucharest, and the Pond's check seemed to come in answer to the royal prayer. She was surprised to learn that some people thought she had cheapened herself; she said that every shopkeeper in Rumania claimed that his whole stock was endorsed by the King and Queen, and that he would be suspected of revolutionary ideas if he didn't; so that endorsements were a matter of course with her, the check being the only novelty.

Some endorsers, like Alice Roosevelt Longworth, said "No" several times before saying "Yes." She committeed the worst crime that has ever been perpetrated against the testimonial; she

announced through the Associated Press that she received \$5,000 for the endorsement and that she intended to put it aside at compound interest until little Paulina came of age. This statement was a body blow to the infant endorsement industry. At that time many people still believed that the endorser was a good creature, who gave the endorsement because of a generous impulse to spread the good news about Pond's. Few understood that the sale of a name had become an ordinary commercial transaction like the sale of a fish. The testimonial racketeers have never forgiven the daughter of the former President. The veins stand out on their temples at the mention of her name. It was not only that she shook public confidence, but she cost the testimonial industry several hundred thousand dollars. The wanglers could no longer swear that \$1,000 was the ceiling.

"What?" exclaimed one prospect. "You offer me \$1,000, and you gave Alice Roosevelt \$5,000. If she's worth \$5,000,

surely I'm worth \$10,000."

"But Mrs. Longworth is a President's daughter."

"Yes, but she's a Congressman's wife."

After a strenuous session, a bargain was struck in this particular case at \$3,750, \$2,750 of which was charged up against Mrs. Longworth's indiscretion. Prices rose all along the line. The Queen of Spain came ten times as high as Queen Marie, but a large part of the sum had to be spent in greasing governesses, noblewomen and princesses before the Queen could be propositioned.

Anne Morgan, who wanted money for her French war charities, signed promptly. The seething Vanderbilt masses resisted for a long time because of their dread of the wrath of the elder Mrs. Cornelius Vanderbilt, matriarch of the tribe, but they finally began signing one after another for this and that, until today the name is a drug on the testimonial market.

Some of the other Pond's People were Mrs. Condé Nast, Mrs. Adrian Iselin II, Mrs. William Borah, Mrs. Asquith, Marjorie Oelrichs, the Marquise de Polignac, Viscountess Curzon, the Duchess of Alba, Lady Lavery and the Duchess of Vendome. The theatrical profession, which had previously held a monopoly on endorsements, was snubbed. Two titled

women—Lady Diana Manners and Princess Matchabelli—were the only stage people admitted to the Pond's aristocracy. Only good Christians were allowed to endorse Pond's.

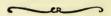
Sales of the cream lagged in New England. Wanglers were sent to Boston with instructions to get a Cabot, regardless of price. They were viciously rebuffed when they put the matter even before a friend of a friend of a Cabot. They were scornfully repelled when they tried to do business with Cabot butlers, and even the Cabot social secretaries had their honor. On receiving this report, headquarters ordered a search for a brokendown Cabot or a Cabot black sheep. The home office was crazy for Cabots because everybody had heard of their interesting tete-a-tetes and a Cabot testimonial would have an indirect value of divine approbation. But even the most impoverished of the Cabots was unapproachable. Adamses, Lowells and Saltonstalls and other old Boston families refused to exercise their leadership in the great Pond's cause. The examples of the Queens of Spain and Rumania meant nothing in Boston. In her final report to headquarters, one wangler said, "Forget Boston till you sign the Queen of England." The Philadelphia nobility was almost equally aloof. New York, Chicago and Washington are the good testimonial towns. Only the five American cities mentioned were recognized by Pond's.

There was a flaw in the Pond's campaign. Among the endorsers were some of the world's least beautiful women. The first wave of Pond's endorsers included women with wrathful, astounded or hungry expressions. No department of the testimonial industry is more sophisticated than the photographic department; misty focussing and unprincipled retouching do marvels; but it is impossible to soften features of startled granite.

It was planned to work in a few young things in the second wave of Pond's beauties, but debutantes are very unsatisfactory. If they are under age, it is necessary to obtain the consent of their parents; then, again, in many families there are young animals called brothers who jeer horribly and ruin carefully planned and costly campaigns. Finally, if a bud does sign, the chances are that she marries before the advertisement is used, and

her new name cannot legally be used unless it is separately purchased.

Early in the campaign, it was recognized that a grave error had been made in permitting divorcees, especially those on the wrong end of a decree, to endorse Pond's. After due consideration, the canons of the Episcopal Church were made the canons of Pond's, and the testimonial became a sacrament. The austere creams may be endorsed by none but maids, widows and chaste matrons. The ringleader of the testimonial industry is more orthodox in this matter than the Archbishop of Canterbury; the church will forgive erring ones who repent, but Pond's advertising account was closed forever to any woman who has been in a jam.



"Allure" Sought in Vegetable Packages

Styles change in packaging fruits and vegetables as do styles in women's clothing, declares L. C. Carey of the Bureau of Agricultural Economics.

Carey follows the analogy further by saying that "the quest (in packaging fruits and vegetables) seems ever to be for a maximum of attractiveness and allure, of streamlining, and of reduced bulk consistent with adequate protection."

Cranberries a few years ago were marketed in barrels; now they come in boxes. Fruits and vegetables generally are being marketed in baskets or boxes instead of barrels. Texas onions used to be shipped in "log-cabin" crates; now they go to market in "the newly developed, attractive, and appealing, open-mesh bag."

About 90 percent of the total annual movement of from 1,-200,000 to 1,300,000 carloads of fruits and vegetables by rail, ship, and motortruck is being packaged now as compared with 87 percent a few years ago.

Use of consumer-sized bags for certain products is increasing, says Carey, citing the use of mesh bags and paper bags in marketing potatoes, apples, onions, and citrus fruits. Some products are being marketed in paper cups.

-United States Department of Agriculture

# RECOMMENDATIONS OF CLINICAL THERMOMETERS

Bureau of Standards' Tests Reported

THE old-fashioned method of determining whether the patient had a high temperature by placing the bare hand on the forehead is not, of course, to be trusted, Every home should be equipped with an accurate thermometer for the measurement of body temperature, since this temperature is one of the most important indexes of illness and an important guide to determining when a physician should be called. The majority of clinical thermometers sold are accompanied by a certificate of examination. All too often these certificates have been known to be faked, purporting by use of ingenious phraseology, to have been issued by the Bureau of Standards of the Department of Commerce. A genuine Bureau of Standards certificate, however, is clearly and unmistakably what it purports to be, and does not, of course, resort to wording which merely implies or suggests examination or certification by the Bureau. Reputable manufacturers do sometimes issue test certificates of some kind with their thermometers; the less scrupulous manufacturers' certificates can often be detected by the fact that all of the thermometers "certificated" will be shown as having exact accuracy at all points, that is, all their corrections will be recorded as zero.

Massachusetts and Connecticut, having learned the lesson of the dangerous inaccuracy and misleading certifying practices used with clinical thermometers, have laws providing state control for the design and accuracy of all such instruments sold in the state. Such thermometers are stamped MASS. [] SEAL or CONN. [] SEAL together with an identifying letter, inserted between the two words.

Rectal thermometers are considered better for children, but considerable care must be exercised in their use to prevent breakage with consequent injury to the patient. The normal temperature of the body is generally accepted as 98.6°F., but this is not a fixed temperature as it will vary, even in the healthiest person, depending upon age, sex, occupation, etc. This normal body temperature is generally marked on a thermometer by an arrow and the mercury should always be shaken down to at least three or four degrees below this point before using. Clinical thermometers are known as "maximum" thermometers, i.e., they remain at the highest temperature recorded until the mercurv is shaken back. Some thermometers may become defective with lapse of time and fail to hold their readings until the mercury column is again shaken down to a position below the normal temperature. Such thermometers, whose readings fall back after the temperature is taken, are technically known as "retreaters." Thus it is advisable to test your thermometer occasionally to ascertain if it has developed this defect. If so, it is useless and should be replaced by an accurate instrument.

Consumers' Research, having arranged for the purchase of a number of clinical thermometers from various drug stores and mail-order houses, submitted these to the Bureau of Standards for test, in accordance with Commercial Standard CS1-32 which requires an accuracy of within 0.2° at 98°F, and within 0.3° at 106°F. The thermometers listed below met this standard and may be considered accurate for all practical purposes. Two thermometers were tested of each brand. Thermometers are of the mouth type.

Of the sixteen brands of thermometers tested, we recommend the eleven which follow.

### RECOMMENDED

Hutco Surety (Hudson Thermometer Co., Inc., N.Y.C.)

Taylor Bond (Taylor Instrument Co., Rochester, N.Y.)

Taylor, Cat. No. 8 D 2600 (Distrib. Sears, Roebuck & Co.) 69c plus postage.

Kessling (E. Kessling Thermometer Co., Brooklyn, N.Y.; distrib. Liggett's Drug Stores) 79c.

Taylor Instanta, Cat. No. 8 D 2607 (Distrib. Sears, Roebuck & Co.) 89c plus postage.

Todco (Eisele & Co., Nashville, Tenn.; distrib. Owl Chain Drug Stores) 89c.

B-D Manhattan (Becton, Dickinson & Co., Rutherford, N.J.; distrib. Whelan Drug Stores, Inc.) \$1.50.

Firstaid (E. Kessling Thermometer Co.; distrib. Liggett's Drug Stores) \$1.25.

Meteor (The Hoffar Co., Inc., 103 East 125 St., N.Y.C.; distrib. Whelan Drug Stores, Inc.) \$1.75.

Taylor Mass. Z Seal, Cat. No. 8 H 2602 (Distrib. Sears, Roebuck & Co.) \$1.29 plus postage.

Taylor Tycos, Cat. No. 5002 (Taylor Instrument Co.)

# Consumers Should Avoid Waste

It is essential to remember that the wise spending of money is no less important than the avoidance of wasteful methods of production, because no labor or capital is more completely wasted than that which is used to produce something that satisfies no desire. . . . No matter how efficient may be our mines and farms and factories, we cannot regard our economic system as efficient if it induces consumers to spend a large part of their income for goods which yield little or no satisfaction.

—Sumner H. Slichter in Modern Economic Society.

## MUST BUYING STANDARDS BE TECHNICAL?

By
Charles S. Wyand\*

N a summer evening a few years ago, several Kansas newspapers broadcast through their classified ad columns one of the most unusual help-wanted appeals to be printed during the depression. The advertisement simply stated that several unemployed fat women could find work by applying to the Home Economics Department of the Kansas State College. The successful applicants earned their wages by taking naps each afternoon under tiers of blankets, on rubber cots so constructed as to carry the perspiration from their overheated bodies into little jars. The perspiration thus collected was then analyzed, and its chemical effect on clothing studied. Had the experiment been successful, thousands of women might not now be quarreling with their dry cleaners over who was to blame for the holes in their commercially dry-cleaned dresses. For the whole project had its origin in an effort to establish some sort of standards for the measurement of the effect of human perspiration on weighted silks. While the fat women slept, one more attempt was being made to set up standards adequate to insure efficient consumption in our exceedingly complex modern economy.

Few aspects of the recent depression are more interesting than the rapidity with which the consuming public has become aware of the economic importance of its buying role. Although business recovery has in some measure reduced the consumer's militancy, there yet remains a very real demand for some sort of descriptive labeling which will protect the retail buyer from the more flagrant forms of commercial exploitation. Seeking to meet this demand, experts in certain scientific fields have been agitating for the establishment of labeling procedures which would describe the characteristics of goods in purely technical terms. Nor is such emphasis on technical specifications confined to the scientific laboratory alone. Thus, the manufacturers of Chatham sheets have placed descriptive labels on their products which indicate the thread count, tensile strength, weight, and the per cent of sizing used in each grade of sheeting they manufacture. In all cases brief descriptions of the technical terms employed accompany each set of specifications.

Even advertising agencies have adopted the technical label. Thus Roger Wolcott, Inc., of Boston,

<sup>\*</sup>Mr. Wyand, author of the newly published Economics of Consumption (Macmillan, 1937), will present each month in Consumers' DIGEST a discussion which will deal with some question of special interest to teachers and students of consumption.

Massachusetts, has designed a series of informative labels which are attached to rugs manufactured by the M. J. Whittall Associates, Ltd. One of these labels offers the prospective purchaser of a Whittall Anglo Persian Wilton rug the following specifications:

WEAVE: 6 Frame Jacquard Wilton

MATERIALS: Face: 100%

worsted yarn Back: worsted yarns and cotton yarn

CONTENT: Average

Wool: 27/8 lbs. per

sq. yd. Cotton: 27½ oz. per sq. yd.

DYES: Fast to sunlight and shampooing

YARN: 6- and 8-ply worsted

PITCH: 256 (9½ tufts per inch across)

WIRES: 13½ rows of tufts per inch lengthwise

SHOT: 3

TUFTS: 126 per square inch

Following these details, the technical terms are described in simple language and the label concludes with the statement that "this label conforms to the policy of the United States Bureau of Home Economics and the American Home Economics Association in urging manufacturers to state relevant facts useful to consumers in their buying."

It is to be noted that, in both of these cases, emphasis has been

placed upon technical terminology, the assumption being that the consumer not only wants but must have such descriptive details if intelligent use of income is to result. In other words, reaction to the puff, the half truth, and all of the other currently popular forms of commercial misrepresentation has found expression in a swing to the opposite descriptive extreme. Certain self-styled leaders of the consumer movement, apparently impressed with the validity of the scientific method and relying too firmly upon the integrity of scientists and technicians working for commercial enterprise, are insisting that anything short of a technical description of products must be inaccurate. Such inaccuracy in their view would come in any case where a product is recommended or characterized in any brief, simple terms (such as most consumers will prefer for their own convenience: a high quality product, a first-class article, a superior appliance of its type, etc.). As a result of the sudden discovery and application of the scientific method in an unfamiliar field, there has been a great clamoring for specifications and specification labeling by certain organized groups who are mainly themselves without technical qualifications or capacities to conduct technical tests, who have apparently not stopped to consider either the obstacles in the way of such a program or the patent disadvantages that would develop if the movement were later to overcome its inherent and initial difficulties.

Although it is true that sales of Chatham sheets increased appreciably following introduction of the new label, there are certain aspects of this problem of technical description which make extensive use of such information undesirable. To begin with, it must be remembered that the descriptive label is ostensibly designed for the information of the average consumer who is at the same time a housewife, merchant, lawyer, stenographer, or deliveryman as well. Moreover, it should also be apparent that it is utterly impossible for any person, however brilliant, to master in one lifetime the knowledge necessary for an intelligent use of a wide range of technical specifications. When it is recalled that a buyer for any large department store spends years of concentrated effort in learning how to buy, more or less efficiently, one type of product, how can the average man or woman be expected to find time in his or her day to learn something of the composition of tooth paste and motor cars, textiles and fountain pens, cosmetics foodstuffs? The simple fact of the matter is that most people have neither the time, the training, nor the money-and above all, the professional interestnecessary for so stupendous a job. And however carefully the advertiser may attempt to reduce technical terms to "simple language," the consumer is yet uninformed. For unless the buyer has some conception of the function and relative importance of the constituents of a product, he may just as well buy by blurb as by the chemical or engineering analysis and experts' technical description.

This is an important point. It is not enough to know the structure of a product. For example, a given brand of shaving soap may indeed be able to generate 10,000 bubbles to the square inch of face surface. But will the soap soften a beard? And will it leave the skin unpleasantly irritated or smarting? The original tensile strength of sheetings is important, but no more important than a number of other factors, including the quality and mean length of the cotton fibers used and the rapidity with which the tensile strength and other favorable properties of the sheet are diminished by laundering. The chemical content of fountain pen ink is meaningful only to the person (and there are but a few hundred such persons in the United States) who can find in the formula answers to certain fundamental questions. For example, will the ink cause deterioration of the paper which is written upon? Does it write with a strong, clear color without spreading in the fibers of the paper? Will it retain a strong color after prolonged exposure to light and after soaking in water or weak alkali? Does it penetrate the paper deeply enough and contain the right ingredients to resist erasure, either by mechanical means or by chemical? Is it free of sediment and will it remain so after a period of months? Does it excessively corrode steel pens? Or, to take another example, will a mothproofing material composed of a salt of arsenic or fluorine in water, with a chemical wetting agent, kill nothing but moths or will it be seriously toxic for human beings? These are the important questions, not the technical name of a material or an appliance or of its constituents, but what that technical name or description means to persons qualified to judge performance, safety, and the other basic factors which determine the large and complex questions that underlie the ultimate judgments of the usefulness and economy of goods. Goods are bought to be used and technical specifications are of no significant worth unless the buyer knows all of the active qualities of the ingredients involved (which in many cases are numerous, and oftentimes are themselves so complex in type or structure as properly to require a subsidiary set of specifications to define their characteristics). Kerosene, for example, seems simple enough to the layman or home economist, but to the oil technologist there are a dozen types and grades of kerosene, and some are wholly unsuitable for certain purposes, such as making a fly spray, whereas others are excellently adapted for that purpose and less well adapted to some other—for example, burning in a lamp. Almost every raw material or common ingredient involves just as complex questions. Soap is soap to the layman, but to the chemist it makes a great deal of difference whether it is a potassium soap, a sodium soap, a superfatted soap, a rosin soap, or a sulphonated alcohol soap.

Finally, it should be observed that nearly all well-formulated specifications require for their effective use that they shall be equipped to run tests and shall in practice actually run such tests in order to whether the specifications have been met. Over-the-counter tests will not suffice. As a matter of fact no effective over-the-counter tests have ever been developed for any complex product. Government bureaus which have talked of over-the-counter tests do not think well enough of them to apply them to important government purchases. To accept the manufacturer's assertion that his wares have been "tested" is dangerous until it is known what tests have been run, and what the results of these tests were. Even then the authenticity of the results may be open to question, especially if the tests were run under such conditions that the manufacturer paid for them or controlled the testing experts directly or indirectly. Personallydirected, independent, unbiased laboratory tests are expensive, especially if they cover all the important points that should be subjected to verification by the purchaser.

For the average consumer is not the least bit interested in knowing that United States Standard Quality Eggs, for example, are characterized by a "clean, sound shell," and by an air cell which "may be slightly tremulous" but "must not be over 3/8 inch in depth." For practical purposes it is not necessary to know that such eggs may have "a visible and mobile yolk" as well as "a slightly visible germ." All that is necessary for reasonable, intelligent buying is to indicate clearly the truth, that the described eggs are, in fact, thirdgrade eggs. The consumer will not reject them simply because they are not first grade; as a matter of fact, the selection of "Standard nomenclature Ouality Eggs" for third-grade eggs, represents a device of the trade guided and supported by the government to keep the consumer from following that judgment which he would often follow if he knew that Standard did not mean Standard, but grade 3. During 1935, the first year the Great Atlantic and Pacific Tea Company graded their own pack of canned vegetables, they sold 18 million cans of grade A foods, 3 million cans of grade B, and 68 million cans that were clearly marked grade C (a far more honest and informing way of naming a third or similarly low grade than that which the government has promulgated for eggs).

Such simple designations are quite adequate. Consumption is not a precise process, nor is it ever likely to become so for the average man. Rather it seeks to appease broad and frequently obscure wants. A general qualitative designation, such as the ratings compiled by Consumers' Research, Inc., gives the consumer all of the information needed or capable of being easily and conveniently used for efficient use of income. For in such tests laboratory results are subjected to analysis by trained technicians who are able to determine the relative economic and functional value of the goods involved, weighing all of the complex and often very numerous factors unavoidably involved in reaching a competent judgment. And the consumer, through the government's system of grading canned goods, is able to find a reliable and wholly adequate solution his major buying problem, the selection of goods capable of satisfying his desires at a reasonable price, or the price he cares to pay.

There is therefore little justification for carrying technical specifications to the consumer. He does not understand them, he does not want them, nor does he need them. What he does need is a simple grading system which offers him a classification of products in terms of quality and

price. More elaborate information can only be confusing, and in many cases will offer the enterpriser excellent opportunities to employ the half truth at the consumers' expense. It very often happens that a plethora of facts more effectively conceal important truth than a few simple data carefully and informingly stated. The art of buying can be cultivated today by the average person only by accepting the recommendations of competent and reliable technicians. If he could intelligently examine and pass upon all of

the findings which they reach in their tests, he would be a technician in that field himself and would have little need for expert services. The physician or mathematician cannot effectively interpret the work of chemists or electrophysicists. Still less can the ultimate consumer decide whether specifications have been correctly drawn or drawn with a manufacturer's bias, or whether test data determine a good product or a mediocre one. The consumer's best reliance is an honest technician who will do the interpreting for him.

California Wool Growers Urge Grade Labels

WHEREAS fibers other than wool are now being combined with wool in the manufacture of both woolens and worsteds, and

WHEREAS these fabrics and yarns so adulterated are often offered to the consuming public as all wool, and

WHEREAS such adulteration is not only prejudicial to the interests of the wool growing industry but also to the consuming public, and

WHEREAS the sale of part-wool goods and yarns as all wool constitutes a trade practice wholly unethical and one which should be strongly condemned in the interest of fair play,

NOW THEREFORE BE IT RESOLVED that the California Wool Growers Association urges the enactment of Federal legislation making it mandatory on the part of manufacturers to label their goods in such a way as to disclose plainly the percentage of fibers other than wool. We insist that such labels shall be attached to wool goods offered to the consuming public in the form of finished ready-made suits, coats, blankets, knitting yarns, yardage, and any other commodity purporting to contain wool. Only by carrying the label through to the consumer can that consumer, who is now being mulcted, receive protection against unethical trade practices, to which he is rightfully entitled.

-Resolution adopted at the 76th Annual Convention of the California Wool Growers Association.

## HOW TO TEST CAN OPENERS

Consumers Can Easily Do Their Own Testing on Some Products

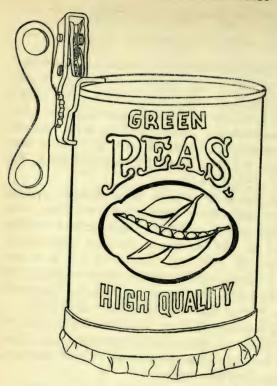
AN OPENERS, like other mechanical devices, may work reasonably well or they may work very badly. Poorly designed can openers or can openers which have become dull with use shave off from the can numerous metallic bits, often long, slender, and needle-sharp. Many of these drop into the food and become an unsuspected part of one's diet. They may sometimes pass through the alimentary canal without harm, but again they may cause serious irritation.

It is known that pieces of enamel from enamel cooking utensils, bits of finger nail, chips from glass fruit jars, even flakes of plating from plated tableware, have caused serious injury. (See *Journal* of the American Medical Association, Vol. 97, No. 22, Nov. 28, 1931, pp. 1612-1615.) It is barely possible, although it is hardly safe to assume, that fragments of metal from cans will be less dangerous or less irritating than such bits of metal or other things that have been just mentioned.

The sort of metal shavings that are introduced into a can of food by a poor can opener are shown in the accompanying drawing which was made from an actual photograph of such shavings after it had been magnified two times.

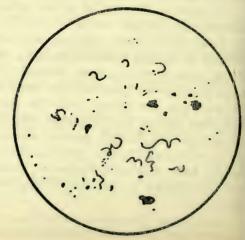
In general, the user of a can opener may do two things to minimize the size and number of metallic chips which will get into his food: First, select a can opener which is of a type characteristically producing fewer chips, e.g., can openers which have a sharp, rotating cutting wheel, instead of a knife or gouge or blunt edge, produce far fewer and far smaller metallic slivers; second, in opening a can, always start the opener past the joint in the can, since forcing the can opener over this joint or seam involves an especial likelihood to produce slivers, and large ones at that, or to drop bits of solder from the seam into the food. (Solder is largely lead, which is a dangerous, cumulative poison and should not be allowed to get into the system in even the smallest amounts.)

It is easy for anyone to test a can opener for the metallic shavings which it will introduce into the contents of the can. To



Drawing of a can with opener attached at top and paper fastened by rubber band at bottom, ready to begin the test.

Metallic shavings (magnified two times) actually found inside a can which was opened by a test opener (not the one illustrated above).



do this take a clean and dry used can, the cover of which has been neatly and smoothly cut off, or obtain a new unused can which may be purchased at a hardware or grocery store, or from one of the large mail-order houses. Over the open end fasten a piece of white paper that has been cut round to be a little larger than the end of the can. The paper may conveniently be fastened to the can by means of a wide rubber band, which will stretch over the edge of the paper and hold it so snugly against the can that any small particles which fall outside the can will not be caught. When the paper is correctly adjusted and tightly held in position on the open end of the can so that any particles which fall down inside the can will be caught and held in it, use the can opener on the other end of the can in the usual way. The metallic particles, which are of a size and character to be of importance to the person eating food from the can, will be collected in the paper where they may be easily examined. If they are few in number and just barely discernible by a person with good eyesight, the can opener is of a relatively good type. The very best can openers will show some slight deposit of particles usually in the form almost of a very fine dust. Whereas the unsatisfactory can openers, which are definitely unsafe to use, will show particles (perhaps like those in the picture accompanying this article) easily discernible by anyone having normal vision.

### How One Reader of the January CONSUMERS' DIGEST Buys His Sausage

I buy the kind of pork I want, have the excess fat trimmed off, and use it for frying, have the meat run through the electric grinding machine before my eyes, then take it home and season it as I like. That way I know what goes into my sausage, and I pay much less for good meat than I would pay for garbage if I bought in the usual way.

If consumers in general would learn this method, the sausage made from refuse would suffer a sudden market slump.

-F. B. J., Santa Barbara, California.

# Consumergrams

It is the function of advertising to bring consumers and sellers together—any consumers, any sellers. It is the function of *Consumers' Digest* to bring discriminating consumers and the sellers of quality goods together.

\* \*

UGLY, shoddy, and hazardous goods will continue to be made so long as there are consumers who will buy them either because of indifference or because of miseducation.

The choices which consumers make in spending their money have much to do with the lowering or raising of our standards of living.

BOTH making and selling are so much preposterous and wasted motion when divorced from using which is the end result which confers rationality upon the whole process of manufacturing and merchandising.

\* \*

It is folly to suppose that the art of consumption can flourish where the ignorance of consumers is not only tolerated but also deliberately fostered.

DUCATION is the only finally effective safeguard against the prevalence of abuses in the making and selling of goods. Ignorance must be liquidated by education, not protected by statute, at least not in a community of free enterprise. Restraining laws and the police power of the state are, at best, concessions to human weakness and ignorance, and are not permanently desirable substitutes for education.

It is only the most shortsighted salesmanship which finds its ideal consumer possessed of an uncritical mind susceptible to a score of irrelevant and crude sales appeals. Such consumers may constitute a profitable market for X's mouthwash, Y's cigarettes, and Z's tooth paste today; they will also, by reason of the same uncritical susceptibilities, constitute Herr Crackpot's or Tovarich Racketeer's mob tomorrow.

# GULLIBLE'S TRAVELS

February 19, 1937

Snocum, Coconut Grove, Pacificania.

Dear Snocum:

I am on the way to becoming a champion sentencefinisher. The fact is that I have turned into a regular contest devotee.

With a little luck, I shall have a turn of fortune that promises me, among other things, a life annuity of \$5,000, a trip to Madagascar, a house in the Catskills, a \$100,000 cash prize, a new \$5,000 Speedoboy automobile, and an autographed photograph of Miss Betty Hocker.

It's all very simple. For example, there is the contest of Kum-on-girls soap which I have entered. It's all explained over the radio every day. It appears that the advertising agency which handles the account of Kum-on-girls soap had some difficulty in finishing a sentence which it started. It got as far as "I use Kum-on-girls because--" and then stopped abruptly. Impervious says the trouble was due to the fact that the advertising boys get girls without soap, and so have no use for it. Here I should explain that while soap is nothing more than a cleansing agent in Coconut Grove, here it is an aphrodisiac and a sure prelude to matrimony. Well, whatever it was that kept the advertising boys from finishing their own sentence, Kum-on-girls is now offering a \$5,000 life annuity as the first prize to the person who finishes the sentence in the most satisfactory manner.

At first I didn't catch on. I bought fifty bars of <u>Kum-on-girls</u> and tore off the wrapper from each one (a contestant may offer as many entries as he can afford bars of soap), and then sent in my finished sentence in fifty different envelopes, each accompanied by a wrapper. My only mistake was that I thought I was simply to tell the truth. I said with entire frankness: "I use <u>Kum-on-girls</u> because I want to win a life annuity of \$5,000."



Impervious said I was crazy, and that I should give them a little woosoppy.

Acting on the advice of Impervious when I saw how reasonable was his explanation, I went out and bought fifty more bars of the soap, and then finished the sentence, as follows: "I use Kum-on-girls because it never fails to lead the way to enchanting lips, because it does something for my complexion that makes me irresistible in the company of the most divine and taunting femininity." Now, dear Snocum, do not begin to think things: I simply put these words together with the help of the advertisements on the radio and in the women's magazines. Of course, in Coconut Grove women are women, and they have been submitting to osculation and matrimony for all these centuries without the inducement of scented suds or sudsy scents. But that is one of the many ways in which Coconut Grove differs from America.

Impervious is wondering what I am going to do with all this soap. He says that our room smells like the cosmetic counter of a department store. For a while I labored under the delusion that the soap was mine, since I bought it and paid for it, and it was my intention to resell it at half price; but recently there was a high court decision in this country which holds that the manufacturer of a commodity retains a property right in the brand name of his product and, therefore, is able to prevent another, a so-called buyer, from reselling it at a price lower than that fixed by the manufacturer himself. Since my soap is plainly stamped with the name Kum-on-girls, I cannot sell the soap without selling the name. Impervious suggests that it would be perfectly legal for me to scratch the name Kum-on-girls from the soap, re-scent it with carbolic acid, stamp it with the name Get-away-boys, and then sell it at my own price. If I don't do this. I'll be bathing with Kum-on-girls for the rest of my life.

Among the most exciting contests are the picture puzzles which develop skill in name-guessing. These contests usually run in newspapers. The Post-Recorder is running a series

of picture puzzles for a period of fifteen weeks. Each picture represents the name of some distinguished American. The contestant who guesses the names -- ninety of them -- most nearly correctly wins a trip to Madagascar. Impervious says that this is an ideal prize as there are probably no newspapers in Madagascar, and the winner will need a rest from buying newspapers and cutting pictures out of them.

There is a law against lotteries in America, but there is no ban upon contests. Americans are really very clever in getting around their laws. Impervious says that everything's in a name, and he scoffs at this great land of opportunity where any scrub woman may be poor today and rich tomorrow, all because of a contest. He wonders why some shrewd kidnapper doesn't call his work "child-sequestering" and thus avoid unpleasant encounters with the law. I am sure that he doesn't mean to say that lotteries and kidnapping are in the same class of crime.

The contests and their prizes are getting bigger and bigger. Just recently a new nameguessing contest with a first prize of \$100,000 was started. Of course, I am entering this one. So is everybody else. It is like the gold rush of 1849 when Americans poured into the far West in search of the precious metal. Only today it is much easier. The rush is to the post office instead of California.

I wish I had time to tell you of more of these great American contests. But if I wrote you more about these contests at present, I would lose precious time which I must devote to sentence-finishing and name-guessing.

As always,





# They bought the January Consumers' digest, and then wrote—

It is just what I have wanted for years .- J. W. B., Ashland, Ohio.

A grand magazine which fills a great need.—L. M. C., Greene, N. Y.

Bought your first issue of Consumers' Digest. I believe it will go over "big."—J. P. C., Los Angeles, Calif.

I have just finished reading your January issue of Consumers' Digest. It is a wonderful magazine and I will continue buying it as long as it is published.—C. R. B., Omaha, Neb.

Your new magazine is the answer to consumers' prayers!—E. H., Hebron, Neb.

Astonishingly good!-A. N. B., Brooklyn, N. Y.

Have just finished reading the January issue of Consumers' Digest and find it more than satisfactory.—O. S., Whittier, Calif.

I have just finished digesting my first copy of your publication. Nothing better or more fortunate could have happened to me than the birth of this magazine. . . .—H. J. B., Lincoln, Neb.

This is the first time I have seen your service and I feel that it's the most wonderful thing in the world.—E. C. D., Minneapolis, Minn.

Your magazine is one of the finest and most constructive.—W. A. F., Glenside, Pa.

I think your magazine, Consumers' Digest, invaluable and shall keep every edition you print for future reference in buying.—L. B., Philadelphia, Pa.

Discovered your "mighty" publication on newsstand of this hotel today. Since reading it from cover to cover (I couldn't lay it down), I'm convinced its circulation will exceed your greatest expectations, by far.—L. L., Oakland, Calif.

# CONSUMERS DIGEST

Neither price, our look, mirsmell, nor snaring adjective, morbrand name, nor size of store, nor seal of approval is a reliable index of the quality of consumers goods.





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Vol. 1 -- No. #

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#### CONSUMERS' DIGEST

Published monthly at 80 Lafayette St., New York, N. Y.

by

#### CONSUMERS' RESEARCH, INC.

Editorial Office: Washington, N. J.

25c a copy

\*

\$3 a year

The American News Company, distributors

F. J. SCHLINK Editor-in-Chief J. B. MATTHEWS Managing Editor M. C. PHILLIPS
Associate Editor

Technical Editors: R. JOYCE and E. W. CHENEY

Address all communications to

Consumers' Digest, 80 Lafayette Street, New York, N. Y. or to the editorial office, Washington, N. J.

Entered as second-class matter at the Post Office at New York, N. Y., under Act of March 3, 1879.

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¶ The material in this magazine is mainly based upon data in the files and from the Bulletins of Consumers' Research, Inc.

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cumulative handbook of buying of more than 200 pages.

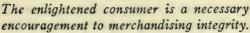
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# CONSUMERS' DIGEST





# BOOTLEG INSURANCE

By L. U. JEFFRIES

Division of Insurance, State of Ohio

If advertisements for insurance come by mail or air from outside your own state—be wary.

If you, among millions of others, receive such advertisements for life or health and accident policies by letter or by radio, write the Insurance Department of your State and inquire about the company before spending any money.

Insurance is a business that is impressed with the public interest and, therefore, regulatory laws are in effect in every state in the Union prescribing the requirements that must be met before an insurance company will be licensed or authorized to do insurance business in the respective states.

For a two-year period, the records of the Ohio Insurance Department reveal the following cases, among others, where the claimants, who were residents of Ohio, received questionable treatment from insurance organizations not authorized to do insurance business in that State. Similar instances must have arisen in other states.

M. H., widow of R. H., and beneficiary under an accident insurance policy purchased by her husband from an unauthorized insurance company, reported the company would not pay the death benefit of \$1,000 provided for in its policy, when her husband had been killed in an automobile collision on a national highway because he had driven his car into the rear of a truck, and the policy provided in one clause on an inside page that the insurance did not cover "any loss contributed to or caused by exposure to unnecessary danger or while violating law." The company refused to pay "due to the manner in which he was operating his automobile that night."

This was a case where the policy insured on its first page and uninsured on the subsequent pages.

In 1934, F. L., a single woman, purchased a policy in such an unauthorized company. In 1935, she suffered a broken pelvis in an automobile accident, for which injury the policy provided \$350 benefits in a lump sum payment. She filed her proofs of loss and, in reply to the question in the blank reading: "Have you any physical infirmities, or chronic ailments?" she answered: "Broken arch on right foot." Further, in answer to the question of whether she had ever had certain diseases, her physician indicated that she, at one time, had infantile paralysis. The company denied liability, claiming that she was not free from injury when the policy was issued and that as a child she had infantile paralysis so that the policy was not in effect, because it provided, in part: "If on the date of such receipt [of the premium] the insured is not alive or not in good health, and free from injury, sickness or disease, the policy shall not go into force. . . ."

This denial of liability was made by the company although the policyholder had not been required to make any representations or give any information as to her physical condition at the time she applied for the policy, and, in such cases, the courts have uniformly held that the company can-

not avoid liability by claiming false representations or warranties on the part of the policyholder. After the Insurance Departments of two states had demanded that the company review the matter, it finally offered \$262.50 as a compromise settlement but still denied liability.

U. C. was deaf and had been so for many years. He purchased two policies in an unauthorized insurance company. After the policies had been in force he became ill and attempted to collect the sickness benefits. The company denied liability because he was deaf, and the policy contained the provision that if the insured was not alive, or was not in good health, or was not free from any sickness or disease, when the policy was delivered, it should not go into effect.

As the attorney for the claimant wrote in addressing the State Insurance Department: "It seems as if [the policy is] strictly construed and an occasion would never arise where

you could collect from many of these companies."

G. B. purchased an accident insurance policy in such an unauthorized insurance company. The policy provided for benefits of \$25 per week in the event of total disability. G. B. while at work suffered a fractured wrist, fractured rib, cuts and bruises. As a result, he was disabled for six weeks. The company declined to pay the disability benefits of \$150, but offered to pay \$100 in a lump sum instead, because the policy provided that the benefits for a

#### Tips on Rising Prices

On account of the increase in price on raw wool recently, it is quite probable that clothing prices will advance in the near future. Silks, including hosiery, may also go higher. The soaps that have not yet advanced may, in some cases, change price. Linseed oil is up and paints will follow. Pipe fittings are on the jump, too, as well as plumbing fixtures, heaters, etc. Wallpaper and window glass are already up. . . . It will be a policy of Consumers' Digest to attempt, with the assistance of market experts, to indicate the trends of prices in important consumers' goods.

broken arm should be \$100, and thus ignored the other injuries. In the same case, G. B. was entitled to workmen's compensation for disability and such compensation was paid for five weeks and one day, although the workmen's compensation provisions excluded the first week of injury; thus establishing that G. B. was disabled for six weeks and one day.

K. A., a woman seventy-five years of age, in 1935, purchased a membership in such an unauthorized aid association, providing for benefits of \$500, payable on death. In the application she set forth her age correctly. Monthly premiums were \$3, which were paid. She died in 1936. The organization refused to pay the benefits to her estate, because she was not of an insurable age at the time of the issuance of the policy, notwithstanding the fact that the company issued the policy to her, showing in it that the member's age was seventy-five.

C. M. heard an accident policy advertised on the radio from a broadcasting station in West Virginia, which policy was issued by a company not authorized to do insurance business in Ohio. She purchased the advertised policy, and about six months later fell and broke her left arm. The company declined to pay the benefits on the policy on the grounds that she was not confined to the house by the injury. This denial was made by the company although there was no question as to the injury, nor the fact that it was accidentally suffered.

C. J. obtained an accident insurance policy by mail from an unauthorized company. On January 20, 1936, he was injured when the wagon on which he was riding skidded on ice and snow. His back and head were injured, the injury to his head causing the loss of the sight of his left eye. The roads were not open at the time, due to a snow blizzard, so he was unable to obtain medical attention for several days. The policy provided for \$500 in benefits for accidental loss of the sight of one eye, and \$50 per month

for disability during incapacity. C. J. was incapacitated two months. The company declined to pay these claims, because he did not consult a doctor until January 28, 1936, and alleged that, therefore, he was not immediately totally disabled.

S. J. purchased an accident insurance policy in an unauthorized company. Later, he was burned in a fire on May 4th at the place where he was employed, was taken to a hospital where his burns were treated and then sent home. On May 5th, he did not feel able to go to the doctor's office. On May 6th, the doctors' offices in his city were closed. On May 7th, he was taken to a physician's office for treatment. He continued under the doctor's treatment, and returned to work on May 25th. The company denied liability for disability benefits, because he had not had a physician until May 7th and, therefore, he was not totally disabled from the time of the accident.

M. A., a single woman, age 57, purchased an accident insurance policy in an unauthorized company. The policy provided for twelve months' indemnity at \$25 per month for disability, or until the disability should cease. On September 5, 1934, she was injured. Proofs of disability were prepared by the policyholder, the attending physician, and the hospital where she was confined. On October 15th, the company's check for \$50 was received, with a letter stating it to be in settlement of two months of disability. She assumed that the benefits for September and October were

paid by the check and cashed it. When her disability continued after October, she demanded her further monthly payments, but the company declined to pay on the grounds that the settlement received on October 15th was an ad-

The consumer is no devouring beast. Usually he is just a fellow named Joe who wants to live as cheaply and pleasantly as it is humanly possible in a badly ordered world. Industry cannot afford to forget him.

ENCHERCIENCHE MENCHENER

-Printers' Ink.

vance settlement and when this check was cashed by the claimant the company was released from further liability.

Subsequently, in February, 1936, after efforts had been expended in her behalf by the Insurance Department of Ohio and the Insurance Department of the home state of the company, the company did pay \$50 more, although the claimant's disability had continued beyond four months. This made a total of \$100 offered for disability benefits, when the insured was disabled long beyond that time.

G. R., a married woman, purchased an accident insurance policy in an unauthorized insurance company. On June 15, 1934, she was accidentally injured while in a city other than that where her home was located. The report of the attending physician in her home city showed that he did not treat her until June 21, 1934. The company first denied liability because of this report, stating that she "was not immediately and totally disabled" as a result of the accident. When the claimant supplied the statement of the physician who gave her emergency treatment in the neighboring city immediately after the accident, the company returned the premiums which she had paid, stating it was cancelling the policy "because she was not eligible for the policy." No reason was given why she was not eligible, and the company simply denied liability on the claim.

It appears obvious that if the facts in the above cases are as related, the claimants would be able to recover from the insurance organizations in a court of law, but from a practical standpoint they are unable to do so. As none of the insurance organizations in the above cases was authorized or licensed to do insurance business in Ohio, they had not filed with the State Insurance Department the required document agreeing to accept service of summons made upon any of their agents as service of process on the company and, therefore, there was no way to bring the companies into court in Ohio. Of course, actions might have been filed in the home states of the companies, but, by the time the claim-

ants employed counsel in two states and went to the expense of transporting the witnesses to the other states, or having their depositions taken, the net recovery would have been so small that the expenses of the prosecutions of the cases would have been prohibitive.

This is one of the principal reasons why any prospective policyholder should be wary in buying insurance which is advertised by letter or by radio, and should inquire of his own insurance department whether the company is authorized to do business in his state.

With the growth of radio advertising, the growth of bootleg insurance has increased to such an extent that some states, including Ohio, have enacted laws providing a heavy penalty against any advertising media which accept, publish, or distribute the advertising of any unlicensed insurance organizations. However, the radio waves from another state may bring the advertising from an insurance organization into a state where it is not licensed, and the damage is done.

Some individuals in Ohio, perhaps innocently, have solicited insurance for such unauthorized organizations, because the organizations have made the proposition very attractive by agreeing to pay 100 per cent of the initial payment as commission to them, and they allay suspicion by having printed on their advertising matter such misleading statements as "organized under the laws of the State of and empowered by law to do business by mail anywhere in the United States."

ROSY TINTED Eight Philadelphia meat dealers and a wholesale grocery firm were fined a total of \$625 recently for selling stale, inferior and colorless meat. Extreme ingenuity was used to deceive customers, according to the testimony. Red reflectors made the cuts look as rosy and red as though the butcher had but recently completed his job. Hamburger meat was also stained with tomato juice.

-Food Field Reporter.

In an effort to combat the evils growing out of these sales of insurance by unauthorized companies, or its representatives, virtually every state in the Union has a law which prohibits any individual from representing unlicensed insurance organizations, but these laws have no extra-territorial effect; that is, they cannot extend the jurisdiction of one state into another and so work as to apprehend and convict the individual in his, or the company in its, home state, if the one or the other chooses to sell insurance in a state in which the company is not licensed.

Within the past two years the Ohio Insurance Department assisted in the apprehension and conviction of an individual who had been soliciting insurance on behalf of an aid association not authorized to do insurance business in Ohio and, at the time this article is being written, is assisting in the preparation for the trial of a solicitor for an unlicensed mutual aid association who has been incarcerated in one of the county jails in Ohio for two months, awaiting action by the Grand Jury of that county.

The name "bootleg insurance" is one of the few things that these unauthorized organizations obtain honestly. Bootleg liquor was sold "right off the boat," by an unlicensed dispenser and the consumer did not know what its effects might be. Bootleg insurance is sold "direct by mail"—sometimes by an unlicensed agent—and the purchaser does not know whether he, or his beneficiary, will be able to collect the benefits.

One remedy for this evil appears to be to educate the public not to buy insurance in an organization when its name is not familiar, without making careful investigation.

Every state has an insurance department which administers the insurance laws of the respective states, and an inquiry addressed to the insurance department at the state capital should bring the information whether the company is licensed to do insurance business in the particular state or whether it is selling bootleg insurance.

# A SCIENTIFIC SELECTION OF GOOD TOOTHBRUSHES

There Are Many Poor Ones For Sale

RESERVATION of the teeth is a matter of diet and not of toothbrushes, which are primarily cosmetic devices. The best toothbrush is one of plain design without projecting tufts. The ends of the bristle tufts should lie approximately in a straight line and the brush and its handle should be small enough so that it can be moved about readily into all parts of the mouth. The separate bundles of bristles should be spaced somewhat apart and each bundle pointed somewhat to assure contact of the bristle ends with the crevices between the teeth. Such spacing apart of the bundles makes the brush easier to keep clean.

All bristle toothbrushes are difficult and somewhat costly to keep clean, i.e., sterilized and free from harmful germs which can cause infection of an otherwise healthy mouth. Rinsing under a tap will not sterilize the bristles of a brush. and most of the really effective germicides either soften the bristles and cause them to fall out or, if the germicide is an effective one such as strong hot vapor of formaldehyde, it is too much trouble to use. The moment bristles begin to break off or fall out, a toothbrush should be discarded. The better grade of toothbrushes (some of which have a long life) should be discarded long before they begin to lose bristles as, unless efficiently sterilized, there is no certainty of their being even moderately free from germs that may cause disease. A rubber toothbrush, though it is relatively unsatisfactory as a mechanical cleaning device, is hygienically more desirable than the bristle brush, in that it can be easily sterilized by placing it for a time in boiling water. As such rubber brushes are not commonly used or sold, Consumers' Research has not vet tested them and is not able to advise on a selection from among the brands available.

In caring for a brush, conform to as many of the follow-

ing precautions as possible: (1) hang the brush from a hook in order to keep it out of contact with dirt and dust which would be carried into the mouth; (2) keep it in a dry and clean place and one where air circulates freely, not in a damp corner; (3) hang it in the sunlight or at least sun it as often as is practicable; (4) allow it to dry 24 hours, using a different brush night and morning; (5) wash the tooth paste or powder out thoroughly; (6) sterilize the brush by placing it in a chloramine solution for ten minutes or less. Three Chlorazene tablets (Abbott Laboratories, N. Chicago) (about 79c per 100 at drug stores) dissolved in two ounces of water and kept in a wide-mouthed bottle makes a satisfactory solution for this purpose if replaced by fresh solution at frequent intervals.

#### Rubber Toothbrushes

Rubber toothbrushes, which have the disadvantage of not cleaning within tooth crevices even as well as the bristle brush, are recommended on hygienic grounds. Apparently, there are very few brands on the market. Consumers' Research has located only four, namely: the *Dentiset*, manufactured by the Dentiset Corp., 110 E. 42 St., N.Y.C. (\$1 with can of powder); the *General Health Gum Massage Brush*, manufactured by the General Health Corp., Phila. (25c); the *Tefra* Rubber Refill, fitting the handle manufactured by the Tefra Co., Indianapolis (refill 15c, handle 10c); and *Dr. Blanchards*, manufactured by the Massadent Co., Worcester, Mass. (50c). These brushes, however, have not been tested for quality.

#### Bristle Toothbrushes

Of thirty-five brands tested, we recommend the six which follow. The recommendations are based on a determination of the brushes' conformity to the approved shape and upon wear tests made to determine the ability of bristles to remain firmly secured in their sockets and not to break off in use.

#### RECOMMENDED

Takamine Scientific (Takamine Corp., 132 Front St., N.Y.C.; distrib. Liggett's drug stores) 5 for 50c. Present rating is based on a more recent test than that reported in Consumers' Research Bulletin, September, 1936.

Approved Professional, Cat. No. 8-4308 (Distrib. Sears,

Roebuck & Co.) 29c each plus postage.

Tefra Refillable (The Tefra Co., Indianapolis) 25c complete. Refills insertable into an opening provided in the end of the handle, 15c each. Rubber and bristle refills available.

Cal-So-Dent (Calsodent Co., Inc., 315 Fifth Ave., N.Y.C.) 50c.

Pycopé (Pycopé Inc., Joplin, Mo.) 45c.

Fuller Professional (The Fuller Brush Co., Hartford, Conn.) 38c.

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A N endless succession of swift generations, free from man's artificial interference, have ennobled Nature's products—above all in that outcome of the blossom, the fruit—and given them a most attractive acidity in their savour of delicious

their savour of delicious sweetness. But they must be eaten in their native place, as they cannot bear such horrible experiences as a long journey to other parts. It is their nature to fall from the branch and to be eaten on the spot, or else they become tart, infallibly lose their exquisite aroma, and decay so rapidly that they rot at a mere touch. . . .

The natives are passionately fond

of durian [a tropical fruit], and race to the great forest tree when the Free From Man's Artificial Interference fruits are ripe and ready to fall; in fact they actually arrange durian expeditions. Half a dozen men mark out the ground under one of the larger trees and sit, each waiting in his respective square, on the watch for the gifts from above.

Suddenly a fruit loosens its hold and falls, causing a terrible noise in the close foliage and branches. As if awakened by magic, up jump all the natives, instinctively covering their heads with their hands until the great durian has come to earth and buried itself well into the ground. Infernal shouts of joy, baffling all description, rise on the air, and the happy finder grows

still happier at the sight of his companions' long faces.

Dr. Eric Mjoberg, in Forest Life and Adventures in the Malay Archipelago.

# ON DE-WASPING

By Van Allen Lyman

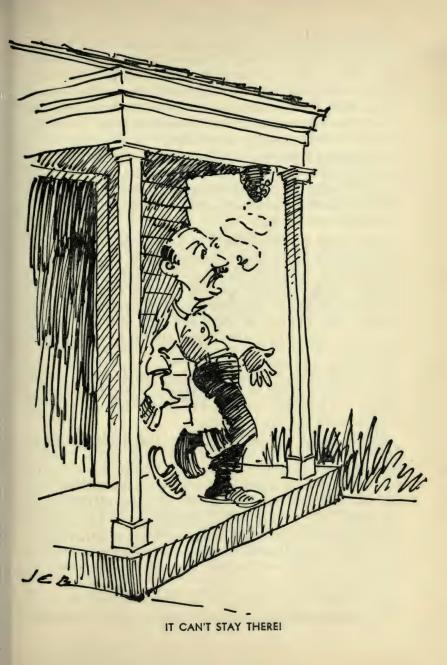
ASPS, hornets, yellow jackets, and stinging bees, too, are as a rule nothing to get nervous over, and, if unmolested, may be depended upon to mind their own business. There are, of course, exceptions among them who do not know this rule, and with a well-nigh human propensity are always ready to go out of their way to start something and, sad to say, are well equipped to finish what they start.

Therefore, when a colony of social wasps have chosen to build their papier-mâché nest upon one's house or close enough to endanger diplomatic relations, it must be disposed of.

Above all, do *not* try to knock down the nest with a long pole nor, in rodeo fashion, to lasso it with a rope. Merely dislocating the old homestead serves only quite naturally to make the wasps mad, and they are apt to run amok, stinging everything and everyone in the vicinity of the disaster, after which they will invariably rebuild the nest anyway. One must, instead, dispose of the wasps, and the nest will take care of itself.

The surest way to exterminate a wasp colony is, first, to note the exact location of the nest in the daytime and plot a convenient approach, then at night or very early dawn to make a surprise attack by flame, burning the nest and all of its occupants. Never try to exterminate wasps in the daytime for the simple reason that many of them will be away from home and even the homebodies will be active and on the alert, turning your little sortie into what might be termed a stinging defeat.

For burning a nest, use a lightweight pole having some newspaper, fan shaped, tied to one end with a piece of wire. Some oil or gasoline upon the paper will insure a good flame. Light the paper, and immediately upon the burst of



a good flame, thrust it quickly against the underside of the nest and hold it there. Hold the pole so as to stand off at an angle because some of the wasps may drop out scorched, but still well armed, and, knowing a normal wasp, one shudders to think what a hot one could do. Be sure to use a large flame, so as to completely envelop the nest from the start, for time is the essence of the contract.

The flame method, properly employed, will be found completely effective as far as the wasps in the nest are concerned. Should any part of the nest be left after the flame subsides, knock it down, and any wasp larvæ still remaining can be used for fish bait.

Later in the day, there may be a few bewildered or indignant members of the colony clustered about the site of the vanished nest. These are the ones who stayed out all night, "rounders" perhaps, little appreciating their unjust deliverance from the fate of their more domesticated, home-loving brothers. But you can get them too, right then and there, or on the succeeding night if you are quick and careful about it.

Obviously, this burning method cannot be used where there is danger of fire to one's property, unless a fire extinguisher or a good, big, wet mop with long handle is previously made handy for use if necessary.

Should such a fire hazard entirely preclude the use of a flame, another method will be effective, and that is to submerge the nest in gasoline or kerosene. To use this method, one should procure a pail or can large enough so that the nest will be quickly covered with the liquid before the wasps can escape. For a small nest, a tomato can tied to a stick is just the thing. Proceed as with the flame method, quickly and quietly at night, and, for economy, one could use auto crankcase drainings or, in fact, any other liquid which is deadly to insects.

The poorest, but sometimes a necessary, method, perhaps, in a case where the nest is fastened to a side of a building wall, is to use a squirt gun and quickly, but liberally, drench the nest with the lethal liquid, taking into account at all times, of course, the fire hazard.

Some varieties of social wasps and bees nest in tree cavities, apertures in houses on occasion, or underground. For these, a big syringe containing gasoline, kerosene, or bisulphid of carbon is needed. Make sure of just where it needs to be put, and then put plenty where it will do the most good. Before starting, beware of fire hazard and poisonous fumes. Bisulphid of carbon is poisonous and will kill you as neatly as it will kill insects, gophers, and prairie dogs if you get a large dose of it, and so will gasoline fumes. Both are highly explosive as well. So take great care.

Bear in mind that the time to work on these insects is at night or very early morning when they are quietly congregated in the nest and not active and absent in part as in the daylight hours. Properly handled extermination is quick, simple, and effective, with very slight danger of getting

stung.

However, should you, by chance, fall afoul of one of the enemy, don't let it alarm you. Pull out the stinger, kiss the place if it will do any good, and forget about it, though, if you properly plan and conduct your raid, you will *not* be stung.

#### Commercial Propaganda in Schools

Booklets which are provided by commercial firms for use in the classroom also contain unsubstantiated, false, and misleading material. In the previously mentioned analysis of 300 booklets, 75 per cent contained questionable statements. In other words, only one-fourth of the booklets analyzed were free from undesirable material. Thirty-seven per cent contained false statements, 43 per cent contained unsubstantiated statements, and 59 per cent contained misleading statements.

-M. Elizabeth Winkelhake in Journal of Home Economics

## WHAT TOILET SOAP DO YOU USE?

Six Recommended Brands

If you have in mind "widening your horizons," "stirring your ambitions," recovering a complexion like that of five little Canadian girls, or soaping your way into an otherwise unattainable wedlock, there is nothing in this article to tell you how to do it. If, however, you simply have in mind the long-established custom of washing your face or the less religiously indulged habit of taking a bath, you will find here recommendations of some toilet soaps that are better and safer for your skin than others.

Coconut oil in soap above 25 per cent, or even 20 per cent, of the oil or fat content should be avoided (except for salt-water or marine soap where this type of oil ingredient is requisite), since at and above this concentration the soap may be expected to be irritating to the skin in many cases. Palm-kernel oil is being used more and more in soap manufacture, and it is believed that it will have about the same irritating effect as coconut oil. Only soaps containing less than 20 per cent of coconut oil and/or palm-kernel oil have been recommended. Of fifteen brands tested, we recommend the six which follow.

#### RECOMMENDED

Gondola White Floating (Distrib. F. W. Woolworth Co.) Octagon (Colgate-Palmolive-Peet Co., Chicago)

Palmolive (Colgate-Palmolive-Peet Co.)

Camay (Procter & Gamble, Cincinnati)

Sweetheart Skin Charm (Manhattan Soap Co., 441 Lexington Ave., N.Y.C.)

Cashmere Bouquet (Colgate-Palmolive-Peet Co.)

Adapted from Consumers' Research Bulletin, September, 1936.

If, for any reason, you are unable to obtain Consumers' Digest at your newsstand, you may receive it by mail. Annual subscription price, \$3. Send your check for this amount to Consumers' Digest, Washington, New Jersey.

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# TESTIMONIALS, WHOLESALE

Constance Talmadge, Champion Endurance Endorser

By

ALVA JOHNSTON

Mong the brightest chapters in the history of the testimonial are the campaigns for Lux toilet soap, John Ward shoes, Fleischmann's yeast and the film Breakfast at Sunrise. Constance Talmadge, the star of Breakfast at Sunrise, is the game's official heroine. In one day she endorsed 400 articles, ranging from an aspirin tablet to a grand piano.

The Lux toilet soap campaign was a masterpiece of thoroughness and dash in which Lux rounded up "442 important Hollywood actresses." The campaign was planned in this city. Officials of the great film companies were won over to Lux. James R. Quirk, the Northcliffe of movie journalism, was attached to the Lux cause. Twenty-one movie directors swore allegiance to Lux. Lux arranged big dinners at Hollywood to put the Lux testimonial wanglers on the best Hollywood social footing. Hollywood drug stores and beauty shops through trade arrangements were buried under an avalanche of Lux. In the studios word went out that people of the greatest importance would be gratified if the little girls would all sign up with Lux.

Lux cornered the soap rights of the profession. That was not all. Other manufacturers soon discovered that Lux had not acquired the soap rights alone; it had cornered the talcum rights, the lotion rights and all make-up and cosmetic rights of every kind and character. The Lux beauties agreed to be beautiful because of Lux and nothing but Lux for a term of years. . . .

There was one defect in the Lux campaign. The 442 beauties were beauties before Lux broke into the beauty testimonial industry. Lux might have claimed them anyway; unborn cakes of Lux or the retroactive effect of Lux could

have beautified them in the pre-Lux period. The laws of nature are null and void in the testimonial universe; yesterday's effects result from tomorrow's causes and the past is subject to change without notice. No one would be surprised to learn that a soap of the year 1928 was responsible for Lily Langtry, Nell Gwynne, or the Fair Maid of Perth. But the testimonial industry has suddenly developed a conscience. It has become an unwritten law with the better testimonial houses to avoid obvious mendacity, when artfully arranged truths work just as well. The 442 were not allowed to owe their beauty to the life-long use of Lux or to inheritance from Lux-using mothers. Most of them merely affirmed that a smooth skin was a good thing in the movies. The reader, however, was not advised that nature or youth or some other toilet soap had made the 442 beautiful enough to get into the pictures in the pre-Lux days; on the contrary, he was allowed to infer that 442 Lux babies would be ugly ducklings and wall flowers today except for blessed old Lux.

The ideal endorsement technique today is to make no false statements. The golden rule is never to fool the public; let it fool itself.

The central idea of the John Ward campaign was to picture John Ward shoes being worn by men who looked like regular members of the rotogravure set in the Easter parade or in some other stylish setting. The early John Ward advertisements stated that alert press photographers had discovered that fashionable people wore shoes and that a checkup showed that many an important foot occupied a John Ward. The impression was strongly cultivated that the John Wards occurred spontaneously on these high-life feet and that the John Ward advertising department had nothing to do with instigating it.

The truth is, however, that those genteel feet were rented at varying rates. The average rental of a couple of genuine Social Register feet is \$75 and two pairs of John Wards; feet of smaller social pretensions are to be leased for \$25 and one pair of John Wards; feet of no particular éclat are farmed out for one pair of John Wards and no money. The fact is that the windfall of a single pair of John Wards has been a godsend of the first magnitude to more than one pair of impoverished feet.

As this issue of Consumers' Digest goes to press, we learn that ten United States Senators have given testimonials (cash consideration \$1,000 per Senator) for one of the most widely advertised of American cigarettes. Watch the public prints for their pictures and senatorial words of wisdom on how kind this particular cigarette is to their much-used throats.

In the John Ward testimonial advertisements, the owner of the revenue-producing feet is usually accompanied by a debutante; as a rule he met her for the first time a few minutes before their picture was taken. The debutante ordinarily received \$25 for being photographed on the arm of a gentleman who has commercialized his extremities. In one advertisement the Brooklyn feet of Arthur Fowler Staniford, Jr., were passed off on the reader as genuine Park Avenue "dogs." John Wards were snapped as they stalked down the gangplank from the President Roosevelt on the owner and business manager of a pair of feet which had never been out of this country. Another man, who had leased the usual number of feet for the usual price, was snapped emerging with his partner from St. Bartholomew's Church. They had either not been inside of the edifice, or had passed through a half inch of wrought iron, because the church portals were tightly closed not more than a few inches behind them.

The Fleischmann's yeast campaign was carried on with great success, in spite of two major handicaps: first, the backwardness of the aristocracy in letting the world know how it overcame sluggishness; second, the fanatical honesty of the manufacturers who insisted on having the yeast endorsed by none but bona fide yeast eaters. In order to procure a large supply of bona fide testimonials, testimonial

contests were held throughout the country, cash prizes being offered in local newspapers for the best tributes to Fleischmann's yeast. Thousands of eloquent endorsements resulted, but they did not come from celebrities and social leaders; on the contrary, they came from factory and garage employees, domestics, clerks, waiters, chauffeurs, skilled and unskilled laborers.

It was necessary to build them up; to invest them with glamour; to make the ordinary reader look up to them. The following plan was invented to glorify the endorsers. Teams were sent out into the testimonial country, each consisting of a camera artist and a bland but dominating woman. Each team systematically visited endorsers, looking for promising types. If they found a handsome boiler-maker's helper, printer's devil, or garage hand, it was their cue to wash and barber him, slip him into a polo costume, prop him up on a highly polished pony, wind his fingers round a polo mallet, patiently work him into a Meadowbrook attitude, carefully close the open mouth, coax the stupefied expression from the face and snap him. Then he would sign a new testimonial composed by a word painter in the home office.

Moving on to the next town, the testimonial team stuffs a riding habit with a neatly made waitress, or swathes a plumber's bride in lace and has her muse among the lilies, or tucks a clean-limbed apothecary's clerk into yachting garments and photographs him against a marine background. Trunks full of chic things from Fifth Avenue and the Rue de la Paix are padded with presentable domestics and factory girls, and shot stepping out of Rolls Royces, gliding in canoes, airing wolf hounds, dreaming beside waterfalls and half hidden among the orchids. It took powers of persuasion and skill in taxidermy to stuff the whole wardrobe satisfactorily, but the advertisments were extremely effective and the campaign a tremendous success.

But the story of Constance Talmadge is the epic of the testimonial industry—the story of her who posed for 400

testimonial photographs in one day. Where many advertised articles were engaged in cut-throat competition with one another, she endorsed the whole field; she posed, for instance, showing a set of fine white teeth due to the exclusive use of Pepsodent, Iodent, Kolynos, Dentyne, Ipana, Squibb's, Lyon's, Colgate's or Pebeco, according to business arrangements to be worked out later; she faced the camera drinking a cup of coffee which was Maxwell House, Hotel Astor, Yuban, Alice Foote McDougall, Kaffee Hag, Sanka or whatever brand might come to terms with her manager, Emil Jensen.

Jensen, an advertising stunt man and inventor of the theme song, is a public fountain of ideas. He was instructed by Joseph Schenck, president of United Artists, to do some-thing special for Constance Talmadge and her forthcoming picture, Breakfast at Sunrise. The exact wording of Mr. Schenck's instructions to Emil were, "Do something sensational, but dignified." The first idea that came to Jensen was to take twenty pages in *The Saturday Evening Post*, but a calculation of the cost killed that idea. "Get somebody else to pay for them," was his next flash. Then came the thought to notify all national advertisers that Constance Talmadge would endorse anything that would endorse her. Hurrying East, he found the *Post* too conservative, but made a tie-up with Liberty. Jensen's one handicap was lack of time. Breakfast at Sunrise was coming out soon, and weeks were needed to show national advertisers why they should pay for advertisements which were partly for their products, but chiefly for *Breakfast at Sunrise*. Another difficulty arose. Miss Talmadge was on her way to Europe and would be in New York only one day. Jensen's plan required her to be handy in order to pose for endorsement photographs as fast as he signed up manufacturers. Most men would have been crushed by the bad news, but Jensen immediately determined to photograph the star, on the one day before her ship sailed, as the delighted user of every nationally advertised product.

At 9 a. m. Jensen and his staff swarmed into her suite at the Hotel Ambassador. With him were Victor Hugo Halperin, a motion picture director; Virgil Browning, a crack camera man; three or four suit wearers to pose opposite the star handing her Whitman's, Huyler's, Johnson's, Lowney's, Loft's and Sherry's; assistant photographers, purchasing agents and a double tide of porters that rushed in and out of the suite all day long with beds and bedding, wardrobe trunks, radio sets, pianos, crockery, soap, creams, pastes, electrical apparatus and every article that has an advertising appropriation.

Two stage hands continually rearranged the settings and two maids continually rearranged the star. The camera clicked on the average once in two minutes for twelve hours. She posed in an opera cloak for any department store, mail order house or specialty shop. The cloak removed, she posed under ropes of pearls—for Tiffany, Tecla, Cartier or Kresge, whichever was first to cooperate. Off went the pearls, and she was shot in a few party gowns. Peeled again, she was shot for saucy underthings; then for hosiery, then bedroom slippers. Next came a structure of whalebone, rubber, cordage and tackle which the purchasing department called a corset. The star balked. Jensen would overlook no chance, however forlorn; a compromise was reached; the medieval body armor was draped over a chair, Miss Talmadge stood off a few feet looking the other way, and Browning clicked his camera on the scene.

Snapped in a variety of boudoir silks and rayons, the star was tucked away in a Simmons between the Pepperell and Pequot sheets; was rearranged to emphasize the patent springs and trade-mark mattresses, and then rolled over on one side to be awakened by any nationally advertised alarm clock. Arising, she had a long siege at the vanity table with the scores of preparations that are exclusively responsible for her smooth skin and delicate beauty.

Then came solo poses exhibiting her perfect proportions,

thanks to Marmola, the Lesser Slim Figure Bath, Fat-Off Reducing Cream, the Battle Creek electric shaker. The table set, the star ate every advertised food with every advertised eating tool; she ran the gamut of percolators, toasters, waffle irons and advertised electrical devices, while Browning and his assistants clicked away. They shot her punching the keys of all our leading typewriters, playing Knabes, Steinways, Chickerings, Ampicos; listening rapturously to competing radio sets. Stripping off her own three wedding rings, she registered modest pride and exhibited a Juliet on her matrimonial finger. Jensen was anxious to have the star warmed up by a widely advertised heater, but as it was a sweltering day in the late summer, the purchasing department could not find one, so they photographed Miss Talmadge toasting her hands over nothing and a picture of the heater was dovetailed in on the following day.

The entire night was spent in developing the pictures. Next day Jensen and his assistants, armed with the advance endorsements, started to pay visits to the manufacturers. Their argument was that anybody who took a column or a page in Liberty would get double action on their money, because the repeated appearance of Miss Talmadge would arouse curiosity, cause talk and focus attention on the endorsed article. There was no time, however, to build up Jensen's hoped-for gallery of 100 Constance Talmadge endorsements in one issue; but in the few days at his disposal Jensen found takers for eight of the testimonials, and in Liberty of October 29, 1927, the star appeared being roused from sleep by an Ansonia alarm clock, wearing a Benrus wrist watch, demonstrating a Thorens Sure-fire cigarette lighter, flashing Dentyne whitened teeth, using Gold Seal tubes in her radio and Air Container inner tubes on her car, keeping slim by Marmola and displaying a Juliet Wedding Ring. Each advertisement described her as "the charming heroine of Breakfast at Sunrise," which by the way, was a failure.

# REPORT ON ELECTRIC VACUUM CLEANERS

Electrolux, Among the Large Cleaners, and General Electric, Among the Small, Found Best.

OUR present vacuum cleaner, if in good order, will probably work just as efficiently as the latest model or, indeed, it seems reasonably safe to say, as well as next year's model or the model of the year after that. It is important for all to note that Consumers' Research's results in repeated tests of vacuum cleaners have shown that it is safe to discount heavily salesmen's claims for increased efficiency of new models in dirt-removing ability.

It is often true that "tests" or trials made under conditions of ordinary use, because of the number of uncontrolled and unobserved variables which enter into them, give a result which is at variance with carefully controlled tests in the laboratory, where conditions are deliberately pre-determined so that, for each appliance or material tested, closely identical conditions apply. Considerable time and effort were put into the devising of a vacuum cleaner test method that would give, with a high degree of certainty, a measure of the performance which could be expected in actual use and at the same time have the advantage of the relatively closely reproducible determinations of the laboratory method.

It is a well-known phenomenon that one make of vacuum cleaner will show a degree of superiority on high-pile rugs and inferiority on low-pile rugs, in comparison to another make. The difference, however, unless it is very great is not, to the user, of any particular significance, since what he will be inclined to buy, and probably should buy in most cases, is a vacuum cleaner giving the best possible average performance.

In order to ensure that the dirt used in the test would be representative of practical, severe home conditions, two types of dirt were used. One type was made of a quantity of clay mixed with water and worked into a glutinous, uniform, putty-like consistency. This was stored in sealed jars, to prevent evaporation of moisture. One gram (1/28 ounce) of this clay mixture was placed approximately in the center of each square foot of carpet, and a second specially prepared dirt mixture, of the type used in previous tests of vacuum cleaners, was distributed over the entire surface of the carpets. Both types of dirt were then worked thoroughly into the pile of the carpets, by running a tile-floor-cleaning machine over a light canvas covering which had been placed over the carpets. This device had a circular brush ten inches in diameter, with very stiff bristles. An electric motor imparted a rotary motion to the brush, at the same time giving it an oscillating vertical, or tamping motion. The canvas cover was then removed and the clay allowed to dry; it then adhered strongly to the fibers of the carpets.

## Safety Requirements

The electric vacuum cleaner, if not adequately and durably insulated, is probably the most dangerous of all electrical appliances used in the home, as it is impossible, with customary house wiring arrangements, to ground it easily, as one can refrigerators, to eliminate leakage currents, though such grounding could be arranged for by a possible, but somewhat expensive, modification of the wiring. (Such modification would probably be regarded by most people as an impracticable expense and would, of course, increase the sales resistance of consumers to vacuum cleaners, just as the sale of electric ranges has been greatly hampered by the necessity of making special costly wiring arrangements for them when they are installed.) The special hazard in the use of the vacuum cleaner arises from a number of circumstances, principal among which is the fact that it is not uncommon for the operator to move one or more lamps or other electric appliances out of the path of the cleaner while it is in operation. This of course greatly increases the risk of electric shock, as lamps or the wires which connect them often themselves have electrical faults which permit

the metal frame or bracket of the lamp to become part of the circuit. When this is touched under circumstances which bring it, for example, through a person's body into electrical communication with another circuit, such as that of a vacuum cleaner, the hazard is greatly increased. Another difficulty is that high-speed motor-driven appliances tend to deteriorate as to their insulation, whether through the effects of poor design, hard use and abuse, or the fact that they are likely to be given little attention for inspection or maintenance until a definite failure or breakdown occurs. The Association of Edison Illuminating Companies has approved a tolerance of 0.2 milliamperes as a limitation of current leakage, and in the past Consumers' Research has used this figure as one basis for determining which electrical appliances, which were of types not capable of being easily and securely grounded, should be recommended. It is safe to say that at the present time no one knows where the safe limit of current leakage under all conditions for electrical appliances should be set. Experimental evidence has probably been sufficient to permit the establishment of a safe upper limit for the flow of an electric current through the human body, but this figure is, of course, very much higher than anything that might reasonably constitute a safe upper limit for the leakage flow of an electric current from a new electrical appliance. In setting any such safe limit, it is necessary to take into consideration the practically certain and often considerable deterioration of the insulation-i.e., that it will almost invariably grow less safe with time, owing to progressive changes of the properties of materials of which it is made and the effects of dust, moisture, wear, and abrasion.

Out of the eight large cleaners tested, unfortunately, only one cleaner, the *Electrolux*, came within the limit of 0.2 milliamperes set for the safe leakage current. It is clear from this one instance, and from previous experience, that other manufacturers, by the use of similar care and proper

design, could also make cleaners at the beginning of their service life free from any considerable likelihood of shock hazard.

### Wear on Rugs

Many questions are asked about the possibility of damage caused by electric vacuum cleaners on rugs, especially rugs of considerable value. It should be explained that of the eight cleaners tested, six were of the motor-driven brush type; one had a motor-driven brush with metal beaters; one, the *Electrolux*, was a straight-suction type, depending for its effective operation evidently upon the use of a motor and exhauster capable of producing a relatively high vacuum, under load. It is believed that the amount of wear caused in normally frequent use of a vacuum cleaner on *Axminster* rugs (*Axminster* being selected as an average representative for carpets of all types) by the motor-driven brush-type cleaners, while greater than the straight-suction type, should give concern only to the householder possessed of exceptionally good rugs.

#### Noise, and Radio Interference

Tests were made for radio interference, but it was found that none of the regular (large) size cleaners produced sufficient radio noise to be objectionable.

Vacuum cleaners themselves are, however, notoriously noisy, and to some people, especially apartment dwellers and those who have sick or sleeping persons in their houses, this is a serious disadvantage. Tests were therefore conducted in a large room with an audibility meter and microphone, with each cleaner operating on a low-pile rug. The audible noise was measured in terms of decibels above the threshold of hearing. The *Electrolux* was definitely quieter than any of the other seven cleaners tested.

The ranking for dirt-removing ability is based on the average figures obtained for both high- and low-pile rugs—both with the bags freshly and thoroughly cleaned and also when dirtied by use.

An endurance test was conducted simultaneously on all of the cleaners by running them for one hour, then allowing them to rest for one hour, until each cleaner had been in operation a total of 500 hours. With but two exceptions, none of the cleaners showed fundamental failures indicative of exceptionally short life. The failures which did occur—worn belts and brushes—were of a type which could be corrected by repairs, although not necessarily at the small expense which such actually minor and easily corrected failures should involve.

Cleaners are obtainable from many stores at prices considerably below the customary list price. No doubt much can be done by shopping around, especially in department stores, to get some makes of cleaners at lower than the manufacturers' list prices.

#### RECOMMENDED

Electrolux (Electrolux, Inc., 500 Fifth Ave., N.Y.C.) \$69.75, with accessories. Ranked second in dirt-removing ability of the eight cleaners tested. The only large cleaner tested which met high electrical safety standards. This cleaner was easily the least noisy of the eight tested, which is an important factor in some conditions of use and an advantage to many users. Listed by Underwriters' Laboratories. Weight, 17 pounds.

#### QUALIFIED RECOMMENDATION

General Electric, Model AV 2 (General Electric Co., Bridgeport, Conn.) List price \$59.50 (\$44.60). The most efficient in dirt-removing ability of the eight cleaners tested. Possibility of shock hazard judged to be definitely slight, though it was a little above standard tolerance, already mentioned. Belt, driving revolving brush, worn out after 150 hours of endurance test.

#### Small Hand Cleaners

It would appear that the small hand vacuum cleaners are

gradually coming to carry out the functions formerly fulfilled by the numerous attachments often sold for use with the large cleaners. The General Electric Co., for example, apparently has discontinued making the attachments for the later models of its large cleaners, and advertises its small hand cleaner for the work previously done with various tubes, nozzles, and brushes applied as attachments or accessories to the large cleaners. It is safe to say that the majority of housewives have found that attachments for the large cleaners were so much trouble to connect to the cleaner that they were rarely used, and the investment in them turned out, after a time, to be practically money thrown away. Cleaning attachments can be purchased for the small cleaners. However, they are few in number and much easier to connect to the small cleaner. Tests of these small cleaners disclosed that they were on the average only a little better than half as efficient in dirt-removing ability as the large cleaners, but, as they are mainly used for light cleaning and dusting service, it is believed the best ones will probably serve the housewife satisfactorily. All of the small cleaners, except one, were judged satisfactory in regard to radio interference. These small cleaners, however, on the average, were in themselves about twenty-five per cent less noisy than the large-type cleaners.

With one exception, all of the small cleaners tested were of the straight-suction, stationary-brush type. Of the six small hand cleaners tested, we recommend the one which follows.

#### RECOMMENDED

General Electric, Model No. AV 30 (General Electric Co., Bridgeport, Conn.) \$11. The most efficient in dirt-removing ability of the six small hand cleaners tested. Met standard electrical safety requirements. Commutator-brush spring broken after 50 hours; commutator-brush worn out after 350 hours of endurance test. Weight, 3.7 pounds.

# HOW TO JUDGE GOOD MATTRESSES

We Recommend Three of Thirteen Which Were Tested

umerous filthy, insanitary, and incorrectly labeled mattresses are sold; e.g., secondhand materials labeled as new, and mattresses labeled "100 per cent Horse Hair" actually containing about 80 per cent other materials, etc. A home economist who has inspected many mattress factories writes that, if ultimate consumers but knew the conditions of sanitation prevailing, many of these factories would find their markets cut off. Shoddy mattresses, perhaps those of the felted cotton and inner-spring types particularly, flood the markets and reach the consumer even through our best department stores, which have little either of competence or interest in preventing the distribution of such products.

There are at present no federal bedding laws. Of the states, thirty-two have provided some manner of legislation, but in most of these states the laws are inadequate, their enforcement is slack because appropriations and men are not assigned to consumer-protective activities, and they are subject to flagrant violation. Mattresses labeled to show inspection in Pennsylvania (perhaps also those showing Maryland, Delaware, California, or Massachusetts labels) probably contain clean materials. Labels declaring mattresses to be "new," even official state labels, except those of the states referred to above, are questionable as regards insuring clean materials. Many states allow secondhand materials to be used in "new" bedding, and in most states there is even no assurance of the sterilization of such used materials. Almost everywhere "new" materials may contain dust and dirt. In some mattresses, shredded fabric clippings and mill sweepings are mixed with "new" cotton. Clippings of clean, new cloth direct from the mill are in some places labeled "new," and in others "secondhand," and they may, in fact, be superior to what are known as second-cut cotton linters. Secondhand or used mattresses should, of course, never be purchased.

Guaranties as to filling. The only way in which a purchaser can obtain substantiation of the claims made on the label or by the salesman is to require a written statement from the seller guaranteeing conformity either to stated standards of quality, or to a sample from which the choice should be made, and which should be retained for future reference. An official state label, giving the manufacturer's name and address and identifying the filling, should be attached to the mattress. The right to return, for full refund, goods which are afterward found not to conform to the claims which were made for them, should be assured by unequivocal guaranty in writing before purchase.

The purchaser should also require the dealer to accept complete responsibility for the cleanliness and quality of his goods and, in order to ascertain that he does, should find out whether the dealer has visited the factories from which he purchases, and can and will vouch *in writing* for the sanitary conditions under which these are operated. Department store "private label" mattresses are probably less reliable than those sold under the manufacturer's name.

The durability of average commercially-manufactured mattresses may be judged from the ground on which the Illinois Manufacturers' Association recently protested against the government's manufacture of mattresses for families on relief. The government mattresses, the Association asserted, would destroy the commercial market, since they were of a luxury type which would last at least fifteen years.

Mattresses which support the body evenly without sagging or forming depressions or lumps, but which deflect enough to conform to the body contours, will give the greatest comfort.

A medical consultant has advised that "For a newly-born baby, a basket with a soft pad at the bottom is the best bed. For older children, plain wooden boards under a horsehair mattress are best. . . From the hygienic point of view, a hard wooden-board bed [with horsehair or modern cattle hair mattress] not only promotes the normal growth of the spinal column and limbs, but is more *comfortable*, the ballyhoo of spring and mattress manufacturers notwithstanding. On a hard bed, the limbs find their own comfortable position; on a soft one, the encasing power of the spring and padding tends to limit and restain the motions of the limbs."

#### Hair Mattresses

Hair mattresses of long, curled horse or cattle hair possess very great resiliency, do not lump or pack easily, are very durable as they can be remade, but are relatively expensive (though not per annum). Hair mattresses range in price from about \$35 to \$80, and in the lower ranges hog hair, undesirable as noted below, will be a large constituent. The hair used in them should be sterilized. Horsehair mattresses made of a mixture of fifty per cent tail and fifty per cent mane hair of long, curled strands are considered very good. South American horsehair is considered better than domestic. Cattle hair made of long (12 to 15 inches) curled strands gives long service, but is not as resilient as horsehair. It may give off a slight cattle odor under damp, hot conditions unless properly sterilized and cleaned. Hog hair makes durable mattresses, but they tend to become lumpy. Goat hair is undesirable because it has neither strength nor resiliency.

Labeling. Hair mattresses should show on their labels the type of hair used, and when more than one kind of hair is used, the percentage, numerically expressed, of each kind. Because horsehair is the most expensive, such misleading or meaningless names as "Special Hair," "Amber Hair," "P. S. A. Hair" (Pure South American), "All Long Drawings," and "Boston Black," are often applied to other fillings, in order to sell them as horsehair.

Adulterants. Hair fillings may be mixed, and if properly labeled and sold at lower prices, there can be no reason to object to such mixtures. However, goods labeled "all horse-hair" often contain large quantities of other material.

Remaking. Hair mattresses which have packed down so as to lose resiliency, or which have become lumpy, may be remade by pickering (a process of loosening and separating the strands of fibrous materials) and adding small quantities of new hair. Some firms allow the consumer to watch the remaking processes, which is desirable, since cheap-jack shops have often substituted cheaper hair in remaking. The remaking of hair mattresses is sometimes done, apparently, by a short-cut process which results in their being practically not improved (except as to tufting) over their previous condition. It may occasionally be possible to recognize such poor remaking jobs immediately upon receipt, and in such cases consumers should insist upon the work being done over without cost.

#### Kapok Mattresses

Kapok is a silky fiber which makes a very light resilient mattress. With good care (frequent sunning and airing) a one hundred per cent Java kapok mattress may give ten or more years of satisfactory service, but it frequently disintegrates sooner. A subscriber reports satisfactory experience in having kapok mattresses up to ten years old remade. Kapok from the Philippine Islands or from India is much inferior to Java kapok, but purchasers cannot judge the goods without the aid of expert advice.

#### Cotton Mattresses

The durability and comfort of a cotton mattress depend on the quality of material used and the method and care with which it has been made. The label "all new cotton" is not sufficient to distinguish between a very poor cotton mattress and a good one. Better grades made of longer cotton are usually felted, and so labeled; however, there are also inferior grades of felted cotton on the market. Both cotton linters and staple cotton should be "willowed" before being felted, i.e., the cotton should be put through a machine which separates the oily, dusty fibers and to a large extent shakes out the dirt. New Chinese staple cotton is especially desirable. Cotton-batting mattresses, if made of clean, long-fibered cotton, rank with good felted mattresses. To make the batting, cotton is fed into a box about the length and breadth of the mattress ticking, and six or eight times as thick, and then compressed. Short, uncleaned, "second-cut" cotton-linter filling has to be blown into the mattress ticking. This makes an uncomfortable mattress which easily becomes lumpy; it also is oily and dusty, and for that reason may be dangerous to a person suffering from hay fever or asthma.

#### Inner-Spring Mattresses

In the test of inner-spring mattresses, softness of each mattress was measured by determining the deflection produced by adding weights to a definite area of the mattress' surface. The result is expressed for each mattress as hard, medium hard, medium soft, or soft. Comfort is a matter determined by individual preference; many would consider the hardest mattress tested the most comfortable. The comparative durability of each mattress was determined from examination of the mattresses after subjecting each to 57,000 rollings under a 200-pound pyroxylin (imitation leather)-covered roller in a machine built by Consumers' Research for the purpose. All mattresses were for full-size (54-inch width) beds.

As a result of Consumers' Research's test of mattresses, the following characteristics are considered to be desirable for special attention by a person making a purchase:

- 1. Covering of good old-fashioned ticking (see *Mattress Ticking*).
  - 2. Square sewed edges (finished with narrow turned

binding strip only). Afford more secure protection against vermin than the deep rolled edges (sewed 3/4 to 1 inch in from the edge of the mattress) in which holes develop with wear around the sewing where the heavy thread used in finishing the edge passes through the fabric.

3. Handles firmly secured directly to the outside surface

of the mattress, affording no opening for entrance of vermin

into interior of mattress.

#### Mattress Ticking

Blue and white dyed-in-the-yarn mattress ticking of the old-fashioned kind will give service superior to that which is to be expected from "art ticking," figured damask, or sateen. "Colorfast" tickings which belie their name by quickly losing their color are not uncommon. If you are paying a price that should assure a high-grade article, insist upon a written guaranty of colorfastness. Plain edges are probably as good as, or better than, rolled ones and are considerably cheaper. Side stitching is desirable as adding to the firmness of the sides. To prevent undue shifting of the mattress filling, tufts should be about twelve inches apart.

Of thirteen inner-spring mattresses tested, we recommend the three which follow.

### RECOMMENDED

Beautyrest (Simmons Co., 230 Park Ave., N.Y.C.) \$39.50. Cotton linter felt. Hard. Weight, 71½ pounds. Thickness, 6½ inches. Indicated durability, good. After test, slight sagging at and near one end. On a comparative basis of durability on accelerated life test this product ranked as one of the best of thirteen mattresses tested.

Mayflower Red Cross (New York Mattress Co., Boston) \$39.50-\$42.50 depending on locality. Hair top, felt base, and sisal fiber. Medium hard. Weight, 69½ pounds. Thickness, 85% inches. Good old-fashioned ticking. Indicated durability, good. Produced slight rustling sound. Although ventilator holes and holes where tufting threads passed through cloth would possibly afford easy entrance to vermin, Consumers' Research has recommended this mattress in view of the fact that in some locations and in many households such infestation is a remote probability; for those to whom this does not apply, a qualified recommendation would be justified.

Restal Knight (Simon Mattress Mfg. Co., San Francisco) \$32.50. Fancy linter felt and sisal fiber. Medium soft. Weight, 64½ pounds. Thickness, 7½ inches. Indicated durability, good. After test, slight bulge at both ends. Small holes in cloth where sewing passed through edges and sides would afford possible entrance to vermin. (See note under Mayflower Red Cross mattress; as in that case, for some, a qualified recommendation of the mattress would be justified.)

Is This the Baby Age?

The newest bakery product is a deep-fried "cake treat," shaped like a ball and probably made from the hole of the doughnut. It is called, dear reader, "Puffie Wuffies." If this kind of baby talk becomes popular in the food field, we'll be eating cakie-wakies, porky-workies, cookie-ookies, hashy-washy, soopy-oopy and—stop! We're driving us nutsy-wutsy.

He-Ne Be-Ne is the name of a bread spread consisting of honey and butter. Its manufacturers say that "children love it," and a baby can be taught to call it by name.

-Food Industries.

Watch for the Bride's number of Consumers' Digest—out April 25th.

# WHY FEED CANNED DOG FOOD?

By A. G. West

THE problem of feeding a dog to maintain him in good health and spirits on as low a daily cost as possible, is a problem that confronts a majority of the estimated eight million dog owners in the United States.

Due to the steadily increasing rise in popularity of dogs since the World War, with over 400,000 dogs registered in the American Kennel Club, and, according to the American Kennel Gazette, an investment of \$75,000,000 involved in their raising, the matter of canine nutrition has come to be of real importance.

There are over 200 canned and other dog foods on the market, with a retail sales value that is stated to range from one hundred to one hundred and thirty millions of dollars a year. But veterinarians have become alarmed at the increase in the use of canned dog foods, as Dr. Gladys A. Emerson has pointed out.

Unfortunately, there appears to be a very large number of dogs that require treatment for ills of dietetic origin. According to Quitman, 20 per cent of the 50,000 dogs brought to him for treatment, were in this group; and since nephritis and diabetes may be indirectly due to faulty nutrition, and since Chambers thinks that nephritis in the dog is mistaken for gastritis, Stuttgart disease, or chronic poisoning, and that it may precede the symptoms of the notorious "black tongue," which is analogous to pellagra in man, the matter of correct feeding of dogs is obviously an important phase of their care.

Dr. C. M. McCay, of Cornell University, has stressed the need for fully adequate diets. In a recent report on nutrition he stated:

Deficient diets inevitably lead to disease. . . . There is no doubt that the general field of pathology is widely confused today by the tendency to ascribe the cause of many diseases to the parasites that are found

in the late stages without a due consideration of the depleted nutritional condition of the host that made such an invasion possible.

Is canned food a safe and nourishing diet for either the dog or cat? Does such a diet consist of rich, muscle meats and is it really "Fit for Human Consumption" as some of the labels on certain brands of dog food have claimed? These are queries that may be best answered by experts in the field of animal nutrition, by examination of federal and state reports from official chemical laboratories of the contents of cans of such dog and cat rations, and by the comments of skilled veterinarians.

Judging from the statements made in a letter to Senator L, J. Dickinson of Iowa written by Dr. D. M. Campbell, an editor of *Veterinary Medicine*, which was read aloud to the Senate, it would appear that unwholesome canned dog food is a dangerous diet for dogs. This letter reads in part:

I am intimately acquainted with the canned dog-food industry and have known it for years. At present it is in a deplorable condition due to the unconscionable practices of racketeers who infest it in large numbers. Its products are to a large extent filthy, unwholesome, innutritious, unfit for a dog to eat or for its owner to take into his home. Sales are made through fraud and deception in labeling and advertising. I, and most other veterinarians, maintain that unwholesome canned dog food is responsible for a vast amount of illness and mortality among dogs, and cheats dog owners out of millions of dollars annually.

Several veterinarian magazines have tried to improve conditions, such as the North American Veterinarian which pointed out the desirability for biological as well as chemical standardization of such products, while in 1934, the editors of the journal of Veterinary Medicine announced that prospective advertisers of dog foods would be required to submit the results of biological feeding tests prior to acceptance of their copy. As Dr. D. Breese Jones, chief of Protein and Nutrition Research, Bureau of Chemistry and Soils, United States Department of Agriculture, pointed out some time ago:

One of the outstanding discoveries made within a comparatively recent time in the field of nutrition is that proteins differ not only

with respect to their chemical make-up, but also in their food value. . . . Formerly all foods were classified according to four basal factors—proteins, fats, carbohydrates, and mineral constituents. A diet was considered complete which contained these four factors in sufficient quantities to meet the physiological needs of the animal. In the older appraisement of food values, little consideration, if any, was given to the quality of the protein. A protein was a protein, and its food value was largely judged by the number of calories it would furnish. Today we know that a diet may supply an abundance of calories, and may contain a sufficient quantity of protein, fat, carbohydrates, inorganic salts, and vitamins, and yet be inadequate to provide for the normal growth and maintenance of an animal if the protein is not of the right quality.

In the monograph entitled "Protein Conversion Factors," from which this excerpt is taken, Dr. Jones brings out the fact that the quality of a protein depends on its content of what are known as amino acids. There are now known to be at least nine of these which are absolutely essential to growth and maintenance, though a considerable number, estimated at about twenty-two altogether or perhaps even more of these amino acids, are known to science. Certain amino acids *must* be contained in the food eaten by the dog, as the animal is unable to manufacture them from other substances.

As government experts have found in their discussions with canned dog food manufacturers, or in the hearings on the NRA codes, such manufacturers are but slightly interested in the welfare of the dogs to be fed these canned foods. They are usually very much interested in the money to be made from selling such products. As the veterinarian in charge of enforcement of the Food and Drugs Act commented recently, it is important to know the *source* of the protein in the can of dog food. Was it taken from the hide of a steer, with little or no food value? Was the protein obtained from cow udder, or intestinal content, or perhaps merely from lung tissue?

One packer who visited Washington, D.C., to discuss his problems with the federal authorities, was said to be amazed that the practice of putting meat that had been discarded after all the juices had been extracted for beef juice, into his "kibbled biscuit" product, was not regarded with official favor. Yet if a manufacturer puts out a dog biscuit, or a "kibbled biscuit" which boasts of a high "meat content," the purchaser naturally assumes that the meat in question is not only of good, clean quality, but that it naturally contains all the nourishing juices it is supposed to have. A dog could not survive long on a form of meat-protein from which the juices were lost.

Professor George Cowgill, of the Scientific Council, has suggested that one way to obtain a biological test would provide that:

A canned dog food that will successfully pass a three-generation test with standardized test animals of known nutritional history might be adequately called a complete dog food for practical purposes.

The term "biological value" is used to indicate the proportion of digestible nitrogen that is assimilated by the body, correction being made for the metabolic and endogenous nitrogen excreted.

Unfortunately, a good proportion of the canned dog food business does not appear to have been built up from the practice of including rich muscle beef as the protein in the canned dog food, but in many instances it does include the practice of utilizing waste scraps, or trimmings, stomach wall, lung tissue, etc.

In a monograph on the nutritive value of the protein in calf lung tissue, by Ralph Hoagland and George G. Snider, published in September, 1936, reference is made to an earlier paper in which the authors had reported their experiments showing that the protein in calf lungs had appreciably lower value than that in veal. According to Hoagland, "there is comparatively low nutritive value in lung tissue, though more than in tripe, but much less value than in lean beef."

Stomach wall, another favorite protein of the packer of some canned dog foods, is harshly criticized by nutrition experts. It contains a poor quality of protein, presumably due, according to Hoagland, to a deficiency of one or more of the amino acids. Tripe is prepared from the walls of the first and second stomachs of cattle, and experiments indicate it to be of poor nutritive value.

That the protein from cow udder leaves much to be desired in the way of nutriment, is evident from the report of a series of experimental tests carried out in the government laboratories.

It should be apparent that muscle meats are a desirable form of protein. However, according to the government records of biological feeding tests, a can of dog food that does not provide such nutriment, but substitutes instead a protein obtained from inferior portions of the animal, does not conform with the best nutritional values required to keep an animal in good health over a long period of time.

Moreover, while some canned dog foods stress their vegetable and vitamin content, the proteins in the vegetable products are more or less deficient in the essential amino acids. The important vitamins necessary for growth and maintenance of the body are seriously affected by heat, canning, and other manufacturing processes, as will be shown, while vitamins B and C are readily soluble in water. Vitamin C has been shown to be easily destroyed by heat and oxidation, and the present belief is that this vitamin is not needed by the young dog. It is reported as helpful with older dogs.

Apparently foods lose a great deal of their essential vitality when cooked, or otherwise treated mechanically or thermally. As Emerson has shown in her nutrition work with dogs and as McKenna, Morgan, and Ivy have all reported from their observation and experiments on animals, stress must be laid upon the need and importance of vitamins in canine metabolism.

Dr. Hazel Munsell of the Nutrition Studies Section of the United States Department of Agriculture has shown:

Vitamins are important substances that are essential for growth, vigor, and general well-being of the body. They are often described as necessary body-regulators. . . . As long as vitamins are present in

sufficient quantities, all is well, but as soon as they are lacking, or present in insufficient quantities, the disease or abnormal condition that they prevent, develops.

At the time of an attack on uninspected canned dog foods in the United States Senate, there were said to be about fifteen plants manufacturing dog food which were under the inspection of officials from the Bureau of Animal Industry of the Department of Agriculture. The remainder of the two hundred or more packers manufacturing these products were not under such jurisdiction. Some of the cans of dog food sold on the open market bore the label, "Fit for Human Food," or similar legends.

On the same date that Senator Dickinson of Iowa made his speech against uninspected dog foods, on April 27, 1936, Secretary Wallace issued a ruling known as Amendment 10 to B.A.I. Order 211, Revised.

This ruling was not to take effect until some months later, on September 16, 1936, and an interpretation of the *meaning* is best gained from a letter in answer to a Congressional inquiry, dated November 24, 1936, signed by the Acting Chief of the Bureau of Animal Industry, A. W. Miller, in which he stated that inspection of dog food had been discontinued under the new Amendment.

In the course of his speech in the Senate, the kinds of material to be found in some of the uninspected dog foods were defined by Senator Dickinson, as follows:

Next, and equally serious, is the character of this uninspected—one can hardly call it food—product. It comes from two sources: Carrion, made from dead animals, or else from the diseased lungs, liver, and fibrous tissues which make up the refuse from slaughterhouses. On the farm and around the stockyards it is known as tankage. Before this bonanza in dog foods began, it was used exclusively in the manufacture of fertilizer, and that is all it is actually fit for.

In order that the Senator's hearers should be informed further as to the meaning of the term "tankage," the testimony of Mr. C. J. Rich, of the Rich Products Corporation of Rockford, Ill., was read into the Congressional Record. This testimony had been taken at the time of the NRA

code hearings on canned dog foods, and read in part as follows:

Throughout the eastern part of the country, people, and especially the housewife, do not generally know what "tankage" is. . . . It is sewage; it is packing house garbage.

Entirely aside from any question as to whether a can of food for dogs or cats may contain suitable nutriment for such pets, the question of the price paid by the buyer is of importance. Patton has tabulated a list of the fixed costs per can that bears out his contention that cheapness of canned dog food is an illusion. Table I reveals the essential cost of placing a can of dog food on the retail market:

#### TABLE I.

Can (No. 1)	1.726	cents
Freight and handling		44
Label	0.125	66
Carton	0.252	66
Labeling and packing, etc	0.350	44
Filling, cooking, sterilizing, etc	0.750	66
Selling costs	0.250	66
Transportation costs	0.510	44
Overhead	0.600	66
Manufacturer's profits	0.333	ш

Total cost per can. 5.170 cents

Thus the can of dog food must carry a fixed cost of this 5.17 cents, which may in some instances, according to Patton, run slightly higher if the charges against it for transportation, or selling, etc., should be a little higher. It can hardly run much less on an average.

#### TABLE II.

Fixed cost	0.50	8c can 5.17c 0.83 2.00	10c can 5.17c 1.00 3.83
	6с	8c	10c

This table shows that the purchasers of the cans of dog food are receiving but 2 cents worth of "food value" in the 8-cent can. When the dog is fed from a can that has cost his master 10 cents in the store, he gets but 3.83 cents worth of "nourishment," while in the case of the cheapest can, at

6 cents, the dog gets less than a third of a cent's worth of "food."

Why waste 94 per cent or so of the money you expend for food for your dog on the canning? For nine or ten cents, in even the largest metropolitan districts, a very fair quality of fresh stew beef may be purchased for the animal, and fed to him with no other preliminaries than dicing it up in small pieces with a sharp knife.

If canned dog foods were as highly nutritious and beneficial as some makers claim, it would be probable that they would be used for patients in such an institution as the great Angell Memorial Hospital and Dispensary for Animals, in Boston. However, such is not the case. Not only are dog owners advised to feed their pets with good fresh meat, milk, bones, tomatoes, and other supplementary foods suited to their age, size, and condition, but information is available in a leaflet published by the Massachusetts S. P. C. A. In this, the Assistant Chief Veterinarian, Dr. Rudolph H. Schneider, says:

Animals are endowed with an inborn instinct to sense deficiencies in their dietary, and so it is that domesticated house pets are likely to become scavengers when in freedom, and develop queer cravings if their home diet is inadequate. . . The vitamin value of the dietary is often low, due to an insufficient intake of natural foodstuffs, or to their treatment prior to consumption. Boiling, cooking, pasteurizing, storage, decomposition, subjection to heat or to the drying of alkalies (e.g. use of bicarbonate of soda in cooking); drying, canning, preserving, and other manufacturing and refining processes definitely reduce or completely destroy vitamin. In short, the degree of departure from raw, natural foodstuffs is an index of the food's deficiency in total vitamin.

At the Canine International Congress held in Monaco in 1934, eleven experts from eight nations worked out from data presented there a diet suited to dogs. It was agreed that the dog should be fed raw meat as a basic diet, this to include muscular tissue, bones, viscera, glands, blood, etc. There may also be included, in an equal quantity with this meat, dog biscuits, dry bread, or well-cooked cereals. A good increase in the diet was suggested for adolescent and working dogs, as well as for those in lactation, gestation,

etc. Ample sunshine was stressed by these experts as a necessity for all dogs.

Owners of dogs should appreciate that it is actually cheaper, in the long run, to avoid doctor's and hospital bills for their pets, by feeding such animals properly. A diet that is merely "adequate," and which barely sustains the dog or cat, is not sufficient when trouble comes, and a reserve is needed. For this reason it is wiser to feed the animal an ample supply of fresh, raw meat, preferably beef; with an occasional meal of lamb, and fresh fish; fresh milk, with a raw egg in it daily, if well borne; dog-biscuit or the like; and either tomato or orange juice. Do not give the same diet day in and day out. Offer a variety.

Fresh, clean water in well-scrubbed pans or dishes where the dog can get at it, day or night, is an absolute necessity. Unquenched thirst drains water from the tissues to satisfy the needs of the body. As respiration itself is carried on through the means of water, it is essential that the dog have constant access to fresh water.

Experience has shown that the dog which is a meat-eater lives longer, in the main, and is better fitted to overcome illness incident to accident or disease than the dog fed in some other manner. The better quality the food fed to an animal, the larger, stronger, and longer-lived it tends to be. As a professional dog handler, Joseph Viner, of Evanston, Ill., said at the Eastern Kennel Club Show at Boston last year:

"A dog is only just as good as the food he is fed."

Of course we have many more comforts and conveniences than our grandparents had. I merely say that most of us are no healthier or happier, and that 80 per cent of the nation's efforts during the past hundred years have been sheer waste.

—Roger W. Babson in Review of Reviews.

# What To Take Out of Cigarettes Besides Nicotine

From the Journal of the American Medical Association, we learn that "in addition to nicotine and its derivatives, tobacco smoke contains such toxic substances as pyridine, thiotetrapyridine and isodipyridine, prussic acid, pyrolin, ammonia, collidine, formaldehyde and carbon monoxide." The boys who write ads for our digestion's sake will please feature these substances in their copy along with mention of both lead and arsenic which have been found in cigarettes in amounts from five to twenty-five times greater than the 1935 government tolerances for spray residues on fruits.

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# Following Our Recommendations on Coffee

In the February issue of Consumers' Digest, there appeared an article on "Ways and Means of Getting Fresh Coffee." A reader of that article, originally published in a Consumers' Research Bulletin, writes: "We tried it, using a popcorn popper for a roaster. A friend of mine who furnishes hotels and restaurants made up a blend for us which is as good as the Waldorf uses. We buy it green for 20c a pound, but the coffees are the very best—and do we have coffee?"

\* \*

# Another Grateful Reader

"I wish to express my gratitude to the February issue of the Consumers' Digest, on the article 'Athlete's Foot.' I had been doctoring daily for several weeks, but with no improvement. . . . I cannot fully express how thankful I was from the results of two applications of Liquor Iodi Compositus, Lugol's Solution. . . . So I highly recommend Consumers' Digest."

\* \*

# Telling the Florida Citrus Commission

The Woman's Club of Bedford Hills, New York, recently addressed the following communication to the Florida Citrus Commission: "Inasmuch as we have found many Florida oranges with color added unsatisfactory as to sugar content and obviously unripe, we have decided to discontinue their use until we are able to secure fruit properly ripened and without added color." The names of twenty-three women were signed to the communication.

# GARDENING

#### Fertilizers and Soil Amendments

o PLANT food, however "perfect," will make your garden "grow, grow, GROW" if unfavorable conditions, other than a lack of chemical plant-food elements, exist in the soil. Plants may fade in the midst of plenty of fertilizer. Successful plant development is the result of the coordination of several factors including drainage, types of soil, and fertilizers—each of which must be adapted to the kinds of plants that are to be grown.

Good drainage is essential to all but a few bog plants. Soil that does not dry out in summer may need tilling, or perhaps only a simple job of grading the surface so that rain water will not stand on the surface. If the water table (ground water level) is too high because of a high water level of a nearby pond, lake, or stream, you may have some success by raising the garden beds. This should provide sufficient drainage for the usual garden plants, but a fully satisfactory solution may require some lowering of the brook or lake level. Alpines, a few bulbs, and some plants with fleshy roots or grayish felty leaves require very sharp or quick drainage which is provided by special means, e.g., a moraine (mixed earth and stones) for Alpines, a sharp slope, a layer of broken stone or cinders underlying a bed, sand around lily bulbs, etc. The county agent from your state agricultural extension service will advise on general drainage problems.

A good garden soil or loam will consist of (1) sand for drainage, (2) clay for moisture retaining qualities, and (3) humus (decayed organic material) for plant food, in the proportions best suited to the type of plants being grown. Soil must be considered physically as well as chemically. Soil of a good texture is crumbly; a dried mud pie should break under moderate pressure in the hands. A thin soil may be deepened sometimes by breaking a hardpan. If an

existing soil is poor, it usually can be remedied easily enough by adding more sand, clay, sifted hard coal ashes, or humus material. However, should a subsoil be composed of building debris, it is absolutely essential to replace it with loam if good results from gardening are to be obtained.

Chemical tests for soil fertility should be made at the beginning of the growing season. Soil should be taken from several parts of the garden, from a depth of three to six inches, and mixed; the result is a fair sample for a soil test. There are several testing appliances available for the home gardener to distinguish between acid, alkaline, or neutral soils. Farm Bureau agents or state experiment stations will make such tests also.

*Note:* It should be remembered that the recommendations throughout this discussion of *Gardening* are for the average home or amateur gardener.

# Soil Testing RECOMMENDED

The following outfits are recommended only for testing acidity and alkalinity. If testing kits are kept in the dark, they should last for three or four years.

Lamotte Test (Lamotte Chemical Products Co., 418 Light St., Baltimore)

Hellige Tester (Hellige, Inc., 3702 Northern Blvd., Long Island City, N. Y.)

Rich or Poor Test (Urbana Laboratories, Urbana, Ill.)

#### QUALIFIED RECOMMENDATION

Litmus paper, which shows a red reaction to acid and blue to alkali, may be used as a soil test by the amateur. If the soil is neutral, neither the red nor the blue litmus paper will change in color. Dry soil should be moistened for the test with distilled water.

# Type of Fertilizer Complete Fertilizers

For general use, complete fertilizers, whether organic or inorganic, are better than materials containing only one or two plant-food elements. The former contain the three essential plant-food elements commonly deficient in the soil, i.e., nitrogen, phosphorus, and potassium (potash), in varying ratios expressed in the guaranteed analysis required by law to be printed on every package. The meaning of 5-8-7 is: five pounds of total nitrogen (whether available or not), eight pounds of available phosphoric acid, and seven pounds of water-soluble potash, in 100 pounds of fertilizer. All other descriptive terms are put on commonly to mislead the buyer. In some states nitrogen may be stated as ammonia. The analysis sounds better so, but 100 pounds of ammonia contain only  $82\frac{1}{2}$  pounds of nitrogen.

#### Nitrogen

Nitrogen is the most expensive element and the most difficult to maintain in the soil, because it is used heavily by plants and is easily lost. It takes three forms in fertilizer: (1) nitrate, (2) ammonia, and (3) organic nitrogen. As nitrate, e.g., nitrate of soda, it is quickly available, but is easily lost by leaching if the plants cannot take it all up at once; the results show in one to three days. As ammonia, e.g., sulphate of ammonia, it is not so quickly available to most plants nor so easily lost. As organic nitrogen, e.g., cottonseed meal, it is slowly available (except in the synthetic urea), and thus seems lasting in effect.

The notion that all inorganic fertilizers are stimulants (dope) and that the organic ones are superior plant foods is based largely on a misunderstanding of the above facts. Nitrogen in any of its three forms, when used under the

proper conditions, is a plant food.

Nitrogen is useful to the plant as a leaf builder, producing large, healthy leaves. Sodium nitrate applied to annuals just before blossoming is valuable in producing a rapid increase in bloom and tends to give more brilliant coloring to the flowers. Too much nitrogen, however, will cause soft growth and make the plant more susceptible to disease.

Phosphorus, usually stated as available in phosphoric acid,

etc., aids seed germination, and its use will result in well-ripened seeds.

Potassium or potash is the stem builder, producing strong and stiff stem growth.

#### Organic Fertilizers

Since organic nitrogen is at least twice as expensive as the inorganic, let us consider just how necessary organic fertilizers are. It is true that large amounts of decomposable organic matter must be added regularly to most soils to keep them in good physical condition, to maintain their water-holding capacity, and to provide a living place for the soil bacteria which do indispensable work in changing unavailable forms of plant food to available forms. Butcommercial organic fertilizers do not affect the organic content of the soil, because they are so expensive (if for no other reason) that they are always applied in relatively minute quantities. They are useful only as a means of releasing plant food gradually. This gradual release is obtained more cheaply by supplementing inorganic fertilizers with large amounts of organic matter to favor the growth of soil bacteria. These change chemical elements into the organic proteins of their bodies and, dying, release them gradually. If, however, one lives on a farm where a large supply of organic fertilizer is readily available at no expense, soil will benefit from its use.

# Minimum Expense Fertilizer Program Shrubs and General Garden

Keep up the necessary organic matter by the use of homemade compost, leaves, and other plant residues, or peat moss and lime, and add an inorganic complete fertilizer, especially whenever any considerable amount of organic matter is mixed with the soil. For the care of special plants, supplement with the single plant-food elements most needed.

#### Lawns

Grass roots shed by the plants supply most of the humus for a lawn. If the soil is not very sandy or shaly, and is not poor, no organic fertilizer is required. Mow the grass often enough so that the clippings are short enough to be left on the lawn without being too noticeable. Use a complete fertilizer high in nitrogen in early spring and early fall, and if tests show the soil to be very acid, apply ground limestone every five years in late winter before growth starts. Even on poor, sandy soils, one June application of homemade compost or of cottonseed meal, in addition to the above, will show favorable results.

Note: More specific directions cannot be given because the requirements of the plant, the deficiencies of the particular soil, and the amount of rainfall all influence the choice of fertilizer, the nitrogen-phosphorus-potassium ratio, and rate of application. Consult your State Agricultural Experiment Station.

# Directions for Application

#### Time to Fertilize

In general, apply fertilizer at the beginning and during the first half of the growing season. Late-blooming perennials and lawn grass, however, benefit from later applications. On porous soils, the rule is little and often, else the fertilizer will be wasted. Soluble nitrogen given to annuals and perennials when flower buds are forming makes larger flowers. Never use quickly available fertilizers when planting. Do not fertilize trees, shrubs, and roses after June 1, except for fall applications of slowly available plant food.

# Manner of Application

Lime and most fertilizers should be well mixed with the soil. Water-soluble materials (potash and nitrogen as nitrate, ammonia, or urea) may be broadcast. A very few organic fertilizers, e.g., cottonseed meal and homemade compost, may be broadcast on lawns. Lime for established lawns is broadcast evenly when the ground is still freezing and thawing in early spring. Lawn fertilizers should be applied when the grass is dry and washed in with the hose. Very concentrated fertilizers may be diluted by mixing with soil or dissolving in a large quantity of water to prevent burning by uneven distribution. As a rule, keep concentrated fertilizer from touching plant roots. In the late fall, fruit trees may be enriched by spreading a layer of fresh cow manure around the trunk over an area equivalent to the branch-spread of the tree. By spring, much of the fertilizer will have soaked into the ground where it will be available for the roots.

#### Rate of Application

It is important to note that plants may be killed if the rate of application of fertilizer exceeds that recommended. When the same amount of actual plant food (see the fertilizer analyses) is applied, a concentrated fertilizer like Floranid will not burn any more than lower-analysis materials. Most people, however, tend to put on too much, or to put it on unevenly.

Storage of Chemical Fertilizers. Although some kinds of fertilizers are not likely to harden in storage, all chemical fertilizers should be kept in a dry place, bags standing on end, and raised above concrete floors or other floors through which moisture or dampness may at any time be transmitted.

The following classifications are for the average home gardener.

It should be emphasized that no fertilizer is foolproof, not even bone meal. Complete fertilizers are indicated by an asterisk.

#### RECOMMENDED

Homemade Compost or Artificial Manure,\* from leaves, plant refuse, etc., chemical fertilizer (not Adco), ground limestone, and water. To prevent odor and flies, compost the material in a hole or tight bin, and keep covered with a layer of earth or peat.

Homemade Leafmold. Compost of deciduous leaves without added fertilizer, kept moist, and turned over occasionally, will be ready in two years. Oak leaves make acid leaf mold, good for plants which like an acid soil, such as most species of blueberry, rhododendron, azalea, and the native woodland plants. A soil amendment, not a fertilizer.

Fresh Leaves and Weeds. Those who will not bother to compost the material may use autumn leaves (best before they have dried out), dug directly into the soil, with a 5-8-7 fertilizer. A two-inch layer of fresh leaves (equal to 7 or 8 inches when dry and curled) requires 2½ pounds of 5-8-7 per 100 square feet. Only for areas that are bare in the fall, such as vegetable and annual flower gardens. When weeding in summer, chop weeds (before they go to seed) into the ground after the sun has killed them.

Green Manuring. Cover crops, like clover, rye, buckwheat, wheat, etc., turned under. A slow but most efficient method for good-sized areas, such as land for new lawn or vegetable garden. Supplement with chemical fertilizers. In the following, we list plants for cover crops by season of growth:

Full season: Clover (not for acid soil) sown the fall before or, south of New England, in early spring. Earliest growth (turn under in late spring): Winter rye or winter wheat, sown the fall before, or oats sown in early spring.

Heavy growing, mid-season (turn under in time for fall-sown lawns): Buckwheat, on poor soil. Japanese millet or Sudan grass on drier soils, with or without soy beans. Reliable inoculants for legumes are supplied by some state colleges and many farmers' cooperatives (which also sell the seed). Buy only inoculants tested for reliability by state experiment stations.

Animal Manures,\* bought from farmers after careful in-

spection. Quality variable. Beware of woodshavings, sawdust litter, or too much straw. When not sold fresh, should have been forked over several times and kept under cover. Should be supplemented with chemical fertilizers. Fresh manure, if used where it will not be near roots or seeds (e.g., in empty vegetable or flower garden or as fall mulch for deciduous trees or shrubs), is much better than rotted manure, which has lost much of its plant food. Rotted manure is safer for use near plant roots or where it may touch leaves. A content of weed seed is inevitable in animal manure.

Ground Limestone, 75 per cent of it finer than 1/100 inch, calcium oxide equivalent to not less than 50 per cent. Buy only on guaranteed analysis. The safest, cheapest form of lime, a soil amendment serving as an antacid; economizes plant food. Most cultivated plants prefer a slightly acid soil, and are injured by overliming. Warning: Do not lime your soil without first having it tested for acidity.

Complete Fertilizer Mixtures,\* in 100-pound bags, bought by guaranteed analysis (not less than 20 per cent actual plant food) from farmers' cooperatives (such as the Eastern States Farmers' Exchange, Springfield, Mass., Cooperative G. L. F. Mills, Inc., Ithaca, N.Y.) or grain stores. See your local Farm Bureau agent or State Experiment Station for nitrogen-phosphorus-potassium ratio best for you. Ratios widely sold among farmers are the cheaper ones. For general use, 5-8-7; for lawns, 8-6-6 often advised. Very high-analysis mixtures (15-30-15, etc.) cheapest per pound actual plant food, but require more skillful and careful use. Chemical mixtures must be supplemented with organic matter and, in some cases, with lime.

Cottonseed Meal.\* 6.5-2.5-1.5 is safest commercial topdresser for lawns. Good for broad-leaved evergreens and other acid-lovers; slow, lasting.

Grass Clippings Left on Lawns.\* The grass must be cut

- oftener than just once a week when it is growing fast. Rake off any mats of cut grass left after 36 hours.
- Ammo-Phos (American Cyanamid Co., 30 Rockefeller Plaza, N.Y.C.) A, 11-48-0, and B, 16-21-0. Soluble. Requires skillful use. Acid reaction.
- Arcadian Nitrate of Soda (Distrib. Barrett Co., 40 Rector St., N.Y.C.) 16-0-0. Granular.
- Champion Nitrate of Soda (Distrib. Chilean Nitrate Sales Corp., 120 B'way, N.Y.C.) 16-0-0. Soluble pellets.
- Cal-Nitro (Synthetic Nitrogen Products Corp., 285 Madison Ave., N.Y.C.) 20½-0-0. The best value in nitrogen, very quick and soluble, yet resists leaching except in sandy soil. Neutral reaction.
- Sulphate of Ammonia, 20-0-0. Soluble. Acid reaction. Rather hygroscopic. Ford automobile agencies sell it in 10-pound bags. A specially dried ammonium sulphate sold by Eastern States Farmers' Exchange, Springfield, Mass., will stay longer in good condition. Cheap if lime requirement is disregarded.
- Superphosphate, plain, 0-16-0, 0-20-0, and triple, 0-45-0. Most effective carrier of phosphorus in proportion to cost.
- Precipitated (dissolved) Bone, 0-40-0. Not the same as bone meal.
- Wood Ashes From the Fireplace, kept dry. A very low percentage of potash, high lime content. Calcium oxide, 30 to 35 per cent.
- Commercial Aluminum Sulphate (1 pound per square yard) may be applied to neutral or alkaline soil to make it favorable for the growth of acid-loving plants.

#### QUALIFIED RECOMMENDATION

- Sphagnum Peat From Nearby Deposit. Submit a sample to your State Experiment Station or local Farm Bureau agent for comment and for acidity test. Supplement with a complete fertilizer, and with lime if necessary.
- German Peat Moss. (All supplied by the same cartel; buy at

grain stores.) For people who do not use homemade compost, etc., this is the cheapest available "organic" for soil improvement, although not ideal. The "horticultural" grade of moss, which is ground, is useful to mix directly in the soil. Better when moist, so leave bales out to be rained on, 20 pounds (1/7 bale) horticultural moss, \$2.50 quality (for 12 cubic feet), mixed thoroughly in the soil, with 2 pounds limestone and 5 pounds of 5-8-7 per 100 square feet applied yearly, is recommended to keep up soil fertility at moderate cost (but check this at your own State Experiment Station for local conditions). The addition of 1/20 as much of stable manure to the above improves it greatly. Peat moss may be harmful in seed beds. As winter mulch, it is too hygroscopic for safety. For general garden use, the lower-quality (\$2.50 grade) moss, which contains fibers of cotton grass as well as sphagnum, has greater unit utility value than the \$4 grade.

Hydrated Lime. Caustic, quick, but in first season has been found to have no more effect on growth than 80 mesh limestone. See your state lime products inspection bulletin, available usually from your State Agricultural Ex-

periment Station, for brand analyses.

Sifted Hard Coal Ashes for drainage, no food value. Do not use in excess. Some types of coal yield ash which may

be slightly harmful.

Home-Mixed Fertilizers.\* Not a profitable method, even when successful, in small amounts usually used by amateur gardeners. High-analysis mixed fertilizers cheaper. Will not keep in condition. Use at once.

Animal Tankage. Variable; buy by guaranteed analysis. At least 50 per cent should be finer than 1/50 inch. Cheapest source of organic nitrogen and phosphorus.

Dried Blood, 8 to 14 per cent nitrogen. Variable, easily adulterated. Acid reaction.

Bone Meal (Flour, Dust), steamed. About 3 per cent nitrogen, 25 per cent total phosphoric acid. The availability

depends on the fineness, so 75 per cent should be finer than 1/100 inch.

Muriate of Potash, 0-0-48 to 60. Cheapest form of potassium. Soluble. Acid reaction. Cakes badly, so buy only for immediate needs.

Sulphate of Potash, 0-0-50. Cakes badly.

#### References

Bulletin of Inspection of Fertilizers and Agricultural Lime Products of your own state. If your state has no Fertilizer Inspection Law, send for the report from a nearby state. If you do not know the address of the proper office, you may address your letter to the state agricultural college from which it will be correctly forwarded.

Fertilizer Recommendations for New York State, Extension Bulletin 281. Ithaca: N.Y. State College of Agriculture. Comprehensive, but recommendations may not be adapted to conditions in other states.

#### Water Culture

Water culture, i.e., culture in water solutions of plantfood elements, has many interesting possibilities, but it is still in too high an experimental stage to warrant more than passing notice here.

Note: In the February issue of Consumers' Digest, there appeared an article with detailed recommendations on "Seeds for Spring Planting." In the March issue, there appeared an article containing an expert's advice on "Selecting Good Native Plants." Copies of these previous issues may be obtained for 25c each by writing to Consumers' Digest, Washington, N. J. . . . The fourth and concluding article in this series on Gardening will appear in the May issue of Consumers' Digest under the title "Arboriculture."

# HOUSEHOLD RUBBER GLOVES

Seven Brands Recommended

HE use of rubber gloves for many household tasks is well repaid by the protection of the hands, and the saving of time in their care. The cost of using rubber gloves can run all the way from a few cents a year to a dollar or two, so wide are the differences in quality and price. The best gloves (made by a latex process) may be expected, with proper care and barring accidents, to last several years in average household use, as the deterioration by aging, oil or grease, and hot water and soap are slight. The poorest gloves (all made by the old rubber-cement process) may tear or become sticky when used only a few months, or even a few days if they happen to have spent most of their short total life rotting on the dealer's shelves. The inferiority of the rubber-cement gloves is so unmistakable that manufacturers, if they really knew their business or had a bona fide interest in producing a durable product, would have abandoned that process of glove making long ago.

On Consumers' Research's tests, price and quality were found to be totally unrelated in some instances. Although most low-priced gloves showed poor durability, a 26-cent pair (Luxury, sold by Montgomery Ward) ranked second among the 19 samples tested; yet the same retailer's 39-cent brand (Anode), by the same maker, ranked lower, and the quality of its rubber was distinctly inferior. Such discrepancies can be explained only on the basis of somebody's, or probably almost everybody's, complete ignorance of the characteristics of the product and of reasonable requirements that should govern its production.

The wide variation that can be expected in the quality of rubber generally is well exemplified by the finding that the more durable gloves lost strength only a negligible amount, in an accelerated test equivalent to roughly five years of natural aging, while the poorest, in addition to being much weaker than the others when new, had as little as one-tenth the strength of the best gloves after the same aging. Moreover, the weakest rubber was also almost invariably the most susceptible to damage by hot water and soap, oil or grease, and cutting and abrasion. The use of a cheap filler or make-weight is the common cause of this generally poor quality of the unsatisfactory gloves.

The life of rubber gloves is often ended by their tearing, due perhaps to snagging on a sharp edge or projection all too common in the household, and especially the kitchen, or to stretching them in putting them on. Dusting with talcum powder greatly facilitates putting them on safely. Oil or grease (butter, lard, etc.) causes rubber gloves to become sticky if they come much into contact with these substances, and care should be taken to wash greasy substances off with soap and water while the gloves are still on the hands. They should then be dried before being put away. They should be kept in a drawer or closed box, away from light, and away from continued exposure to heat and to sun.

When buying rubber gloves, avoid special sales, which may represent old stock being unloaded before they go bad completely. (This advice holds for any rubber goods.) Reject any gloves that seem stiff, flabby, or have a checked appearance, or that have been exposed to light on display. Fresh rubber *springs back* instantly when stretched; aged or dead rubber *creeps back* to size.

A size or two larger than the leather glove size customarily worn is usually suitable. The fit around the wrist and adjacent part of the hand should be as close as possible to exclude water successfully, and the fingers should fit snugly, but not tight enough to impair the circulation. In choosing length, have in mind convenience in use. A gauntlet too short may allow water to enter, while a long, flaring one may scoop up or catch water. Pebbled or crêped finishes may help prevent the gloves' slipping in handling

wet or smooth objects. Generally, the thinner gloves are most desirable, being less clumsy and not necessarily weaker. Thicker gloves, however, may be preferred for some uses.

All brands listed below, with the exception of the one marked by an asterisk, are based on tests for resistance to aging, hot water and suds, animal fats, flexing, puncture, cutting and abrasion. The thickness of the rubber in each case is also considered.

Although gloves priced at 39 cents and 50 cents are recommended because of good performance, there will be no reason for buying them as long as gloves of equal or even better quality can be bought for about half the price.

Of the nineteen samples tested, we recommend the seven which follow.

#### RECOMMENDED

Luxury, Cat. No. 5143 (Miller Rubber Co., Akron; distrib. Montgomery Ward & Co.) 26c. Also distrib. G. C. Murphy Co., 20c. Though the thinnest of all tested, ranked second in general performance. Best buy.

Firmhold Latex No. 57 (Wilson Rubber Co., Canton, Ohio; distrib. F. W. Woolworth Co.) 20c. Pebbled finish.

Ranked seventh. Medium thickness.

Poinsettia, Cat. No. 2496 (Wilson Rubber Co.; distrib. Sears, Roebuck & Co.) 26c. Same compound as Firmhold, but plain. Also sold as Redskin (Butler Bros.) and St. Regis (McKesson stores).

Wiltex, Cat. No. 2491 (Wilson Rubber Co.; distrib. Sears, Roebuck & Co.) 39c. Pebbled. Ranked first, but nearly twice as thick as Luxury. Also sold as De Luxe (McKesson stores).

Anode, Cat. No. 5144 (Miller Rubber Co.; distrib. Montgomery Ward & Co.) 39c, Pebbled. Thick. Reinforced.

Emperor (Distrib. Walgreen drug stores) 39c. Thin to medium thick, Reinforced.

\*Sani-Tex (Wilson Rubber Co.; distrib. S. S. Kresge Co.) 50c. A special white glove.

# DO YOU WANT A GOOD RAZOR-BLADE SHARPENER?

Read Before You Buy

The purchase of an efficient stropping device for safety razor blades will readily pay for its initial cost, both in increased life of the blades and the added comfort of shaving. Such a device not only performs the function of keeping the cutting edge of the blade in shape; it also retards the deterioration of a blade, if stropping is done immediately after use, by removing the excess moisture which is not and cannot, except by dint of the greatest care, be properly removed by wiping the blade on a towel. Stropping will also remove the free acids, present in some shaving soaps and creams, that may seriously attack the microscopically fine detail of the edge of the razor blade.

In cases where the manufacturer's stated price on the carton differed from the actual purchase price, the actual purchase price is given first, with the stated price in parentheses. The stroppers given below are those designed for sharpening *Gillette*-type blades, the type in largest use by consumers. Re-sharpening *Gillette*-type blades by the simple method of using a smooth drinking glass with parallel sides is not as effective as the best mechanical sharpening devices.

Of thirteen stroppers tested, we recommend the following three:

#### RECOMMENDED

Handy Andy Velvet (Velvet Stropper Co., 995 Market St., San Francisco) \$1. Gave excellent results. Good design. Considerable care must be exercised in inserting the blade in the holder, to avoid damage.

Twinplex, Model G50H (Twinplex Products Co., 3400 Ravenswood Ave., Chicago) \$1.17 (\$1.75). Gave excellent results. Well designed. Judged durable and very convenient to use.

Allegro (Allegro Co., 170 Thomas St., Newark, N.J.) \$5. Hones and strops in about forty-five seconds, both movements being mechanically well devised and executed. Etficient design. Judged to be durable. Be sure to obtain the newest model.

# HOW DO YOU JUDGE CARD TABLES? High Price is No Guide

Hoose a card table which has a plywood top reinforced with diagonal members below; cardboard and wallboard tops have a short, unsatisfactory life. Examine the leg joints to see that they lock rigidly. To protect stockings, be very sure that legs are entirely devoid of splinters and rough spots. A marked tendency toward "ricketiness" is the principal reason why card tables are discarded after only a short period of use. High price is no assurance of good construction or durability.

Of the nine card tables which Consumers' Research has examined, tested, and rated for quality of material, strength of bracing, rigidity, and sturdiness of catches, the three which follow are recommended.

#### RECOMMENDED

Root De Luxe Bridge Table (The A. I. Root Co., Medina, Ohio) \$2.25 plus freight. Strong catches; well braced; table most rigid of those tested; wooden frame and top covered with rubberized fabric.

Lyon Steelart Folding Table, No. F20 (Lyon Metal Products, Inc., Aurora, Ill.) \$4.95. Strong catches; legs braced by means of a tight-fitting metal socket; table one of most rigid tested; metal frame; wooden top covered with imitation leather.

Ferguson, No. 5061 (Ferguson Bros. Mfg. Co., Kansas City, Mo.) \$3.69. Strong catches; well braced; rigidity of table above average; wooden frame and top covered with imitation leather.

# TENNIS AND GYMNASIUM SHOES

The ordinary athletic shoe has a tendency to fail, due not so much to abrasion of the sole as to wear of the upper, and breaks at the counter and toe, the former generally along the line of the top of the sole. The "crepe style" soles though made of molded rubber are very serviceable, but the buyer should not buy them at the higher crepe-sole prices. True crepe soles have a translucent appearance, while the "crepestyle" shoes are definitely opaque. Many real crepe soles are smooth-surfaced, while the "crepe style" are always ridged (irregularly) to conform to the popular concept of crepe rubber.

In a test of twelve pairs of shoes, comprising four pairs of men's tennis shoes, four pairs of men's gymnasium shoes, three pairs of women's tennis shoes, and one pair of women's sport sandals, determinations of the strength of the upper fabric and the abrasion resistance of the soles were made. From the latter, the wear life of the sole per dollar was calculated.

> RECOMMENDED Men's Tennis Shoes

Net King (Converse Rubber Co., Malden, Mass.) \$1.29. Best crepe sole from abrasion standpoint; sturdy upper; gave most sole wear per dollar.

Men's Gymnasium Shoes

Keds-Bike (U.S. Rubber Co.) \$2.45. Exceptionally sturdy construction; cushion insole with arch support; fair wear per dollar.

Ward's Skips, Cat. No. 26 B 4248 (Distrib. Montgomery Ward & Co.) 89c plus postage. A very good buy; well made; most wear per dollar of this group.

Women's Tennis Shoes

Ward's Skips, Cat. No. 26 B 4218 (Distrib. Montgomery Ward & Co.) 79c plus postage. A very well-made shoe, with crepe sole; good wear per dollar.

Converse Chuck-Taylor, Model No. L 9411 (Converse Rubber Co.) \$1.45. Best wear per dollar value of this group.

# A CONSUMER ORIENTED EDUCATION

By
CHARLES S. WYAND

URING the collegiate Christmas vacation a few years ago, the Superintendent of the Public Schools in the town where I was living telephoned to inquire whether I would be willing to conduct the economics classes at the high school on the following day. The regular instructor was ill and, since no qualified person was available, the emergency justified his appeal to me even though I was not properly armed with a teaching certificate (a document which I have since learned is awarded to those who have passed the prescribed courses on the history and techniques of teaching). Being curious, as well as academically brazen, I agreed to conduct the classes despite my lack of the all-important certificate. Twenty-four hours later I was forced to admit that I had learned far more than I had taught.

The assignment for the day involved the submission of previously prepared student reports. The classes were divided into groups and each group had been given a topic by the instructor. The first group to appear had been asked to discourse on "The Status of International Monetary Relations." The topic is accurately reported; for it impressed me at the time as quite a subject for fifteen-year-old children, particularly at a time when international monetary relations had been reduced virtually to chaos, and no three outstanding economists of the day could agree as to cause or cure. Nothing daunted, however, I called for the report. The students apparently had drawn lots; and the losing boy arose, paper in hand, and began a sing-song rendition of an article which he later cheerfully admitted had been lifted verbatim from the Literary Digest. The rest of the class concerned itself with other matters, paying no attention to their spokesman's opinion of the international status of money. Seeking

to create at least the appearance of interest, I suggested that the student stop reading and summarize in his own words the fundamental ideas involved in his report. The suggestion amazed both the speaker and his classmates.

"But," they chorused, "we always read our reports."

The implication was obvious. The facts were plain. I knew nothing of the proper mode of procedure, but I was at least persistent. Eventually I lost, however. For, despite valiant efforts, neither the original speaker nor any of his classmates could present offhand any of the pertinent points of the paper which they had all ostensibly helped to prepare. In the end, the original spokesman continued with his paper, and we heard him through to the end in not too attentive silence.

As the speaker sat down I naïvely raised a few questions. Did the class agree with the *Literary Digest's* interpretation of events? Why the described chaos? Would it affect their lives, and if so how? Would it make any financial difference to their respective fathers if France left the gold standard or the United States devalued the dollar? Again the looks of astonishment. With infinite patience and not too much condescension, one of the group finally informed me that "we never ask questions after." I was literally saved by the bell—which announced the end of the hour.

For the remainder of the day I was the student. In all, I heard six reports dealing with such topics as the economic significance of the N.R.A., the relationship between balanced budgets and the national welfare, and the importance of foreign trade to domestic industry. Not one paper had been personally prepared. Not one group had the vaguest conception of what it was talking about. All were in accord that economics was "pretty dry stuff."

As I understand them, the proponents of this form of teaching feel that it is important to introduce the student to such broad problems at an early age because, as one man put it, "prevailing economic conditions vitally affect the student's welfare and must, therefore, be understood as a prerequisite to sound citizenship and efficient economic functioning."

Ignoring entirely the fact that no one yet understands precisely how our economy functions, it is none the less apparent that the average student will never have an opportunity to modify any aspect of international monetary policy or, for that matter, any aspect of domestic economic policy. even though he did know how such adjustment might be made. The average student becomes a wage or salary earner whose income will never exceed \$2,000 a year. He gets married and worries along through life trying to feed and clothe a wife and three children and, at the same time, keep pace with his lodge dues and the installments on his car and radio. His personal interest in the technics of high tariffs and devalued dollars can never be more than academic, and his practical influence on the determination of national and international economic policies will be precisely nil. As a student, therefore, he lacks interest in such issues because he is young and because he is shrewd enough to see that they will never enter actively into life as he will live it.

Since we in this country are committed to the policy of mass education, it is not enough to say that a few of the more fortunate will some day be in a position of influence and should, therefore, be given primary consideration in the formulation of public school curricula. If we are going to force the average child to attend school until he achieves the age of sixteen, in all decency, the least we could do would be to give him some practical insight that would actually contribute to his happiness and welfare in later life.

This does not mean that the high school need become a vocational school. Nor does it imply that economics as an academic subject should be dropped from the curriculum. Rather, it involves an adjustment of the course of study so that it gives the student a chance to learn something of life as he will find it. And these adjustments imply the dis-

cussion of such simple, everyday matters as the ways by which the butcher and the grocer add a few cents to the food bill, the possible alternatives (if any) in the efficient use of a twenty-five-dollar-a-week income, and the relative worth of the various kinds of weighted silks, mechanical refrigerators, and tooth pastes. As F. J. Schlink has very reasonably asked, why should a student taking a so-called cultural course in manual training be required to make such relatively trivial objects as tie racks or hammered-copper letter openers, when he might be taught something of the relative merits of woods and finishes in anticipation of the time when he will be buying furniture for his own household? Similarly, why a course in the abstract theory of physics or chemistry when the same time might be used in teaching the student something of the application of these sciences in the operation of the equipment of the average household? Archimedes' principle may be important to science, but merely as a principle it has no true educational value for the average man, nor will it aid him in his adjustment to the world in which he will have to live. Likewise, the home economics laboratory too often wastes the time of the future mill hand's wife by teaching her the correct way to prepare and serve dishes she will never eat after leaving school.

The average high school child is too immature and too lacking in experience and knowledge of world peoples and their relationships to be concerned about international stabilization funds, reciprocal trade agreements, or broken peace treaties. They know little about such things, which are in fact as far removed from the average boy's horizon as the Battle of Hastings or Milton's "Paradise Regained." A few of the students will dutifully parrot the desired answers to most broad social and economic questions with a little prompting. A very few more who are mature for their years may develop an actual interest of sorts in their assignments. But none is capable of grasping either the significance nor

the precise nature of such academic subject matter for the simple reason that most students are completely and necessarily naïve as to the reality involved.

This does not imply that the high school boy or girl is incapable of absorbing anything beyond the rules for football or the details of a trade or skill. While the world of international finance is beyond him, there is a vast and equally important world in which he moves every day (and in which most of them will continue to move) about which he has a surprising store of first-hand knowledge. It is the problems of this smaller world which deserve consideration by the teacher.

The average girl, for example, will eventually marry and have as her chief economic function the important and difficult task of expending an inadequate family income. From her own observations and experiences at home, she is already familiar with the general problems of household management and, within a few years, will have them to face not as a child but as a wife. To such a girl, the complexities and conventions of international finance are both meaningless and of no importance. But she could both understand and absorb sound, practical information that would prepare her for her job as family buyer. To tell her, therefore, of triple alliances and the international balance of trade is to waste her time. For by all reasonable criteria of sound education, she should be taught something of the nature of her own world, which, in a word, is to say she should be informed on every aspect of reality which will affect her status as a consumer.

Similarly, the boy's "education" vacillates between emphasis on the broad economic and social problems of the world and the presentation of vocational courses by instructors who have, as a rule, "learned" their respective trades from books. Although it is everywhere apparent that the average man's chances of materially expanding his income are slight, the whole educational system emphasizes the boy's train-

ing as a producer (or as a patron of the arts) and ignores completely his most certain and pervasive function, that of being a consumer. There is something ironic about this academic insistence on production studies, while the nation's advertising bill becomes greater each year, and the federal government spends hundreds of millions of dollars annually to keep farmers *from* producing and unemployed industrial workers from starving, i.e., from ceasing to function as consumers, it being apparently a hopeless task for the government to keep them functioning as producers, for which activity alone they have been trained in the school system and socially conditioned.

To give the average fifteen-year-old boy courses on the abstract principles of physics, economics, or chemistry is, on its face, illogical and indefensible. But to offer him a specific opportunity to study the conditions under which he will live and spend his inadequate income is to aid him in the preparation for efficient living-and to give education a meaning for him. Such a procedure would involve a critical inspection of everything from advertising claims to the retailing tactics of local merchants. It would call for the use of the physics, chemistry, and home economics laboratories as places in which commercial assertions could be scientifically checked. While the girls were learning something of the characteristics of textiles, foods, and cosmetics, and the advertising claims made for them by manufacturers and dealers, the boys could be exploring the technical essentials of a variety of complex products from vacuum sweepers to motor oils and comparing their findings with the manufacturers' claims. And the net result ought to be a group of individuals a little better informed and a little less gullible than is the average consumer today.

It is not here implied that the so-called cultural courses are completely worthless. Rather, an effort has been made to indicate the patent impossibility of giving children who have lived more or less sheltered lives any deep or lasting insight into the nature of the reality beyond and wholly outside of their everyday experiences. All of us do develop an abiding interest in our own affairs at an early age. And, since most persons are throughout life faced with the primary problem of making ends meet, orientation of the curriculum about the individual's needs as a consumer will inevitably result in a keener and more intelligent interest on the part of the student and in an educational program that will really inform and enlighten.

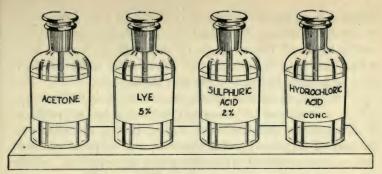
If education involves preparation for life, it is imperative that the public schools of the United States place increasing emphasis upon the problems of efficient consumption. For in no other way will the vast majority of the population be enabled to expand its standard of living in any effective sense of the word, or to find in the public school curricula a challenge to ingenuity and a stimulus to creative imagination.

What we should do in the U.S.A. is to start at scratch and work up gradually.

For example, I know restaurants in France that serve three-year-old wine en carafe, on the table. They have a proper cellar; the barrel must remain absolutely quiet for three weeks before they draw it off for each table order. It is good honest claret. It is very cheap—not for bottling. Non-vintage year, but that is not vital. This is the wine consumed every day at meals. It costs about eighteen to twenty-five cents (U.S.) for twelve ounces in a restaurant. Some add a little water at the table. We should be doing the same thing.

When wine is bottled it should be done in the fourth year. Some bottled wines are consumed after one or two years in the bottle. Even French wine dealers themselves do not drink old vintage wines every day. They drink just ordinary honest claret or white wine, three to six years from the vines, reserving the older ones for festive occasions. Moreover, ordinarily they drink only one kind at each meal.

-From a Reader



(Caution: all these liquids are poisons.)

# HOW TO IDENTIFY FABRICS

A Test for Schools or Home

66 Ts this material all wool?" and "Is this fabric silk or rayon?" are questions which often arise to perplex the consumer in making a purchase. These and many similar questions about the identification of fabrics can be answered well enough by simple tests which any teacher of domestic science or of textiles can carry on very readily for the benefit of high school and college students. The housewife, too, will find that the making of such tests is worth while and not at all troublesome or difficult. There are a number of ways in which different kinds of fibers can be distinguished. Some are easily applied and others require special instruments or skills. The tests which are here described are selected from a larger number of possible tests because of their reliability and ease of performance. Cotton. linen, wool, silk, cellulose-rayon (for example, Crown viscose rayon, Bemberg cuprammonium rayon), and cellulose acetate rayon (for example, Celanese) are the six fibers most commonly requiring identification. Some of these are more easily identified than are others. We first consider tests for identifying silk and acetate rayon because these two fibers are positively and easily identified by application to a sample of the material of a drop of a single liquid, called a

reagent. It is assumed that small samples of the fabrics will be used for testing, but when a fabric is composed of different kinds of fibers, single threads will, as a rule, serve better for test. (However, sometimes two kinds of fibers may be present in a single yarn or thread.)

Of the six fibers mentioned, acetate rayon is the only one which is dissolved by acetone. (Acetone may be purchased in drug stores and hardware stores. It is a common constituent of fingernail polish remover, and of paint remover, either one of which, if it possesses the familiar acetone odor, may accordingly be used in this test in place of pure acetone.)

Put a drop of the acetone in the center of the sample to be tested and rub the spot immediately with the end of a glass rod or a medicine dropper, to make sure that the liquid wets the fabric. Rayon made of acetate yarns becomes slimy and disintegrates in this liquid and can be rubbed away.

Acetate rayon can also be identified, although with less certainty, by burning. It burns much more rapidly than wool or silk, produces a characteristic odor, and melts and drops like sealing wax. The residue is in the form of hard, black beads—much harder than the beads formed by the burning of silk or wool.

Silk, of the six fibers mentioned, is the only one which dissolves in concentrated hydrochloric acid. (This acid may be bought at a drug store. It is, of course, poisonous and corrosive and should be handled with care and, like reagents—and medicines—should be kept out of the reach of children at all times, even during periods of use.) Place a drop or two of the hydrochloric acid on the fabric and rub with a glass rod or the end of a medicine dropper to make sure that the acid wets the fabric. If the fabric is pure dye silk, it disintegrates and a hole develops in the fabric in a few minutes; if the fabric is weighted silk, it is weakened so that it offers but little resistance to pressure applied to it by the glass rod or dropper.

Wool is dissolved by a solution of lye, but since silk is also readily dissolved by the lye, the possibility of the material being silk must be ruled out by other observations (see, for instance, the test for silk just given). Dissolve about a half teaspoonful of lye in a cup of water (do not use an aluminum cup, and remember that lye, too, is a poisonous and corrosive substance and must be handled with care and kept away from the exploratory fingers of children). Boil the sample of fabric gently in this solution. It may be convenient for this purpose to support the fabric on a wire sieve. In a few minutes, all wool and silk (others fibers are only slightly affected) dissolve away, leaving behind whatever other fibers are present in the fabric. Another aid to the identification of wool and silk is that they burn with an odor similar to that of burning hair. As the flame eats the fabric away, black balls form at the edge of the flame. These balls are unlike those formed in burning acetate rayon, and are soft.

As cotton, linen, and cellulose-rayon are chemically similar, and respond to the same chemical tests, they are not easily distinguished by the use of a chemical reagent. If the fabric does not respond to the acetone, hydrochloric acid, or lye test, in other words, if it is found not to be acetate rayon, silk, or wool, it is probably either cotton, linen, or cellulose-rayon, or a mixture of two of these. These latter three burn in the same manner and with the same odor as that of burning paper and in this way are distinguished from silk, wool, and acetate rayon. They may further be identified by charring with a two per cent solution of sulphuric acid. To make this test, put a drop of the two per cent sulphuric acid (obtainable at the drug store, and corrosive) in the center of the sample of the fabric. Place the sample between a couple of thin pieces of tin (i.e., sheet iron, tin-plated, as used in roofing and in tin cans) and press with a hot flatiron. Cotton, linen, and the cellulose-rayon fibers all turn black and are easily broken away from the cloth.

Usually there is but little difficulty in distinguishing rayon from cotton and linen by the greater smoothness and luster of the rayon. One authority offers a method of distinguishing cotton from linen by "ink spotting." Using a steel pen, place a small drop of ink on a sample of the fabric. On an all-cotton fabric, the ink spreads outward from the original center so that the spot is much lighter near the circumference than at its center. On linen, the ink is evenly distributed over the entire spot. Since the effect may be influenced by sizing in a fabric, the test gives more reliable results if the cloth has been washed before it is tested.

Cotton may also be distinguished from linen by breaking individual threads. Cotton threads break "short," whereas linen threads pull apart for a noticeable distance after the break has occurred and leave long and pointed bundles of fibers, which tend to lie parallel to each other. Cotton fibers tend to diverge more, somewhat brush-like rather than spike-like or in a pointed bundle.

Metallic-weighted silk. If silk is heavily weighted, it does not curl when it burns. Heavily weighted silk is easily distinguished from unweighted silk and from other fibers by the fact that the ash when the silk is burned presents an accurate and sometimes very substantial replica of the original weave (which is often strong enough so that it may be picked up with the fingers). With a little experience, one can distinguish heavily weighted from lightly weighted silk by this test and the nature of the appearance and resistance to handling of the residual weave remaining in the ash. If the weighting is of lead, this fact may be determined by placing ammonium sulphide reagent solution (caution: a strong caustic) on the fabric. The spot turns very dark if lead is present. This is an important test because lead is a very poisonous substance which should not be used in silks, particularly in those which are worn next to the body or may be handled by or come into contact with children.

# LATTER-DAY WARNINGS

When legislators keep the law,
When banks dispense with bolts and locks,
When berries, whortle—rasp—and straw—
Grow bigger downwards through the box,—

When he that selleth house or land Shows leak in roof or flaw in right,— When haberdashers choose the stand Whose window hath the broadest light,—

When preachers tell us all they think, And party leaders all they mean,— When what we pay for, that we drink, From real grape and coffee-bean,—

When lawyers take what they would give, And doctors give what they would take,— When city fathers eat to live, Save when they fast for conscience' sake,—

When one that hath a horse on sale Shall bring his merit to the proof, Without a lie for every nail That holds the iron on the hoof,—

When in the usual place for rips
Our gloves are stitched with special care,
And guarded well the whalebone tips
Where first umbrellas need repair,—

When Cuba's weeds have quite forgot
The power of suction to resist,
And claret-bottles harbor not
Such dimples as would hold your fist,—

When publishers no longer steal,
And pay for what they stole before,—
When the first locomotive's wheel
Rolls through the Hoosac tunnel's bore;—

Till then let Cumming blaze away, And Miller's saints blow up the globe; But when you see that blessed day, Then order your ascension robe!

-Oliver Wendell Holmes.

# GULLIBLE'S TRAVELS

March 24. 1937

Snocum, Coconut Grove, Pacificania.

Dear Snocum:

In previous letters I have given you fragments of information about the advertising men of this country. Believe me, they are the supermen of America! Recently, I have had the rare privilege of meeting some of them, and I wish now to expand my observations on their wonderful work.

You will recall that I told you how they have been responsible for the building of many great industries by their scientific work in the discovery of diseases. One of the latest maladies to which Americans are subjectknowledge of which is now being promulgated by the advertising men-is "bird cage mouth." Can you imagine what an awful thing it would be to wake up in the morning and find yourself with a "bird cage mouth"? There would, of course, be the danger that, if you yawned a big, healthy yawn, the house cat would jump right into it. your best friend, getting too close to you, would expect to hear a canary begin to warble sweetly among your back teeth. The result would be all around disappointment for cat and friend on their discovery that you were simply a victim of this newly discovered ailment.

Still more recently I have written you about the hundreds of wonderful contests, some of which I have entered. These, too, are the work of America's supermen, the advertisers. I have not yet had any reports on my success in these contests, but any day I expect to change my address to Easy Street.

But, hitherto, I have barely hinted at

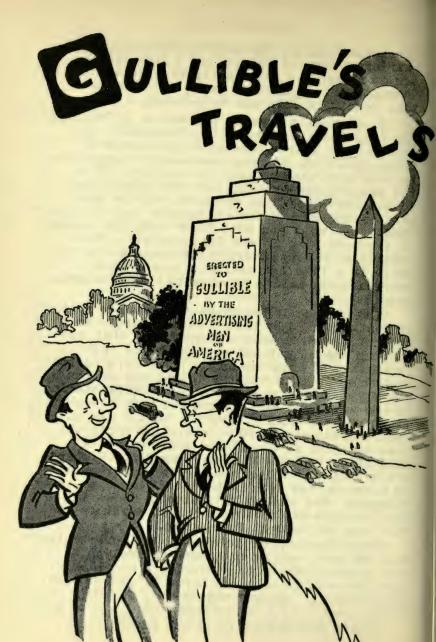
the importance of the advertising men in the American scheme of things, and I fear that I can do no more in this letter than give you the vaguest notion of their contributions to this country's life and well-being.

I can best summarize the matter by telling you that while Congress, the President, and the Supreme Court—representing America's tripartite form of government—are responsible for the laws that govern this country, it is the advertising men who mold the habits, and to a large extent the thoughts, of the more than one hundred million people of this happy land. How well you must know that the habits of a people are, in the last analysis, the laws which really govern their conduct day by day. In a fine and ultimate sense, then, America may be said to be ruled by its advertising men.

The fitness of the advertising men to rule is best attested by their youthfulness. In Coconut Grove we have always known that the old men should get out of the way of the juggernaut of progress or get run over. Current agitation in this country to get rid of men who have passed the age of 70 is very flattering to our ancestors whose stern but very practical customs used to require that a man on reaching the age of 70 should climb a coconut tree and jump to the ground where his soul fell into the lap of the waiting god. Perhaps, after all, our customs were not as barbaric in those days as some soft-headed missionaries thought. The lack of tall coconut trees in the District of Columbia may be a handicap to the Very New Deal at Washington.

With their own youthfulness, the advertising men are able easily to adjust themselves to the level of the population whose mental age has been estimated to be about 12 years. How ridiculous to suppose that men of 70 could govern people with an average mental age of 12!

There are scores of great advertising



agencies headed by America's youthful supermen. Through fortunate connections, I was introduced to the heads of two of the largest of these agencies. The first of these agencies was the famous Button, Bigmot, Blurbstine & Osbilking. The second and not less important agency was N. W. Chaudair & Sons.

At the first place I was received by superman King Blurbstine—what an appropriate given name for such a man, a prophetic choice of parents! In the course of our conversation about how advertising has made America what it is today, I was astonished to learn from Mr. Blurbstine that there are in this country a few detractors who recklessly flout the just claims of advertising achievement. But I judged that Mr. Blurbstine was more than equal to these brazen and unpatriotic detractors. He told me how he had issued a two-fisted challenge to them to come up to his office and see him some time—and to date not one of them has put in an appearance.

Mr. Blurbstine explained to me that the detractors rested their criticism of advertising upon the question of its truthfulness. He said that they were men and women who think of "truth" in a crude objective sense, the way a motorman uses brakes, or a hunter his gun. But advertising men are disciples of the great poet, Keats, who said, "Beauty is truth, truth beauty." Manifestly, then, the truthfulness of advertising cannot be judged in a laboratory, for beauty is a subjective thing which no laboratory instruments can measure. The truthfulness of advertising, Mr. Blurbstine pointed out, consists in its use of exquisitely beautiful women and soul-stirring word-symbols and the like.

Mr. Chaudair was as helpful as Mr. Blurbstine. He explained that his firm had been in the patent medicine business, but had seen the great opportunity of becoming one of the builders of the new America instead of remaining a company that merely heals the sick. Mr. Chaudair told me how the advertising men of America have enriched its language. Through their work, the great words of optimism, achievement, hope, distinction, and wealth have become household symbols of the American spirit.

In my long conversatior with Mr. Chaudair, there was only one note of discouragement which he expressed. He said that this country was waiting hopefully for some American mother to give birth to male sextuplets, and that until this happens the United States will have to remain in the humiliating position of depending for its progress in civilization and sales upon five little foreign girls. Of course, he expressed sincere gratitude for what the five little foreigners had done for the business of this country, "but," said he with a touching wistfulness, "what a final spurt into Utopia itself we would make if only we had native-born male sextuplets!"

I know you will understand the enthusiasm and exaltation with which I came away from Button, Bigmot, Blurbstine & Osbilking and N. W. Chaudair & Sons. In vain did I relate my experiences to Impervious. He only laughed and said they were not supermen but wizards of woosoppy. With a malevolent twinkle in his eye, he said to me: "Some of these days, these advertising men will build a great national monument to you, Gullible." I have been trying, fruitlessly, to figure out what he meant.

Exaltedly yours,





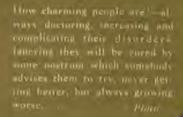
# Buying for Brides

The May issue of Consumers' Digest will be devoted primarily to recommendations of suitable gifts for the newly married. This issue will be on the newsstands on April 25th in ample time for use as a guide in the selection of gifts for those who wish to purchase wisely. Not only will there be recommendations in such fields as silverware and electrical appliances, among the conventional wedding gifts, but the newly married themselves will find help in their buying as well. If June is to be your wedding month or the wedding month of any of your friends, you will wish to examine a copy of Consumers' Digest before making your selections of various household necessities or wedding gifts. Ask your local newsstand dealer to reserve a copy of the May issue of Consumers' Digest for you.

While we are on the subject—why not give a year's subscription to either *Consumers' Digest* or Consumers' Research *Bulletin* to the newly married couple? Few gifts could be more appropriate for those who are about to set up a home in a world where wise buying is as necessary to the art and economy of consumption as it is difficult for the technically unassisted homemaker.

Inserted in this copy of Consumers' Digest you will find a blank for your convenience in asking us to send the wedding gift of a subscription to either Consumers' Digest or Consumers' Research Bulletin to your friends who are about to wed. Fill it out and mail it promptly with your remittance. An appropriate card announcing your gift will be sent to the couple immediately.

# CONSUMERS DIGEST







# ONSUMERS

# DIGEST

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# CONSUMERS' DIGEST

Published monthly at 80 Lafavette St., New York, N. Y.

by

# CONSUMERS' RESEARCH, INC.

Editorial Office: Washington, N. J.

25c a copy

★ \$3 a year **3** 

The American News Company, distributors

F. J. SCHLINK Editor-in-Chief J. B. MATTHEWS M. C. PHILLIPS
Managing Editor
Associate Editor

M. C. PHILLIPS

Technical Editors: R. JOYCE and E. W. CHENEY

Address all communications to

Consumers' Digest, 80 Lafavette Street, New York, N. Y. or to the editorial office, Washington, N. J.

Entered as second-class matter at the Post Office at New York, N. Y., under Act of March 3, 1879.

Entire contents copyright 1937 by Consumers' Research, Inc.

The material in this magazine is mainly based upon data in the files and from the Bulletins of Consumers' Research, Inc.

This magazine, Consumers' Digest, should not be confused with Consumers' Research Bulletins. The annual subscription price of Consumers' Digest is \$3. This rate does not include a subscription to Consumers' Research Bulletins for which the annual subscription fee is also \$3.

¶ Consumers' Digest presents only Recommended products in its listings. The absence of brands from the Recommended list does not necessarily imply a non-recommendation.

¶ Those who desire a more complete discussion of technical details of methods of test, together with the *Intermediate* and *Not-Recom*mended listings of products as well as those Recommended, should subscribe to Consumers' Research Bulletins (issued monthly except during July and August). The annual subscription price of the Bulletins is \$3 which includes the September Bulletin-an annual cumulative handbook of buying of more than 200 pages.

¶ Consumers' Research is an independent, non-profit corporation without political, organizational, or business connections of any kind whatsoever.

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# CONSUMERS' DIGEST

The enlightened consumer is a necessary encouragement to merchandising integrity.

# BUYING FOR BRIDES

This issue of Consumers' Digest is dedicated to the newlyweds of June, 1937. Trade journals have estimated that this year's "bridal market" will reach the sizable figure of \$30,000,000. While romance is inevitable and highly appropriate in many things that pertain to the marriage event, there is no reason why those who spend their money in the "bridal market" should not do so with discriminating practicality. Whether you are purchasing a gift for the bride or beginning to practice the art of housekeeping, appliances or furnishings for the home should be selected with an eye careful for quality, efficiency, safety, and economy.

It is the home rather than the individual that constitutes the essential unit of modern consumption. Approximately one million marriage licenses will be issued in the United States during the year 1937, and a large proportion of these marriages will take place in the conventional season of romance, the month of June. The establishment of one million new units of consumption is a highly significant matter in the life of the nation. Consumers' Research and Consumers' Digest extend heartiest felicitations to those who are entering matrimony at this season, and sincerely hope that they may have the opportunity of offering technical guidance in the art of consumption in many of these newly established homes.



LATED table silverware as now made for ultimate consumers, irrespective of misleading advertising claims, such as "guaranteeing a lifetime of beauty," or "will last a lifetime," will wear through to the base metal under ordinary usage within ten to twenty years (often indeed in far less time) and will certainly require replating long before a short lifetime has elapsed. (The plate will wear through at some points in spite of reinforcements at the regions where the spoon rests on the table.) In addition to these points, considerable wear (important for determining the useful life of the spoon) takes place along the convex surface at the edges of the bowl. One particular brand of spoon, although it was well reinforced at the two common wear points, carried the least total silver plate of any of the six higher-priced (\$6.50 to \$8.50 per dozen) brands recently tested by Consumers' Research, and had an average thickness of plating, disregarding the reinforced areas, comparable to that of the two lowest-priced brands selling at the far lower figure of \$3 per dozen. This brand also contained a large enough trace of lead in the base metal to give a positive test in a chemical analysis, while this was not true of the other brands tested in this price class. This factor might be of some slight importance to the user, especially if, as many do, he used the silverware after a part of the plating was gone.

Misrepresentation is apparently all too common in the silverware industry, as in many others which Consumers' Research has investigated. We quote from a Federal Trade Commission finding: "In promoting the sale of its 'Martha Washington' pattern of silverware the respondent [National Silver Company] caused the quality mark or words 'sectional overlay' to be stamped on each and every piece of said pattern, when in truth and in fact the ornamental pieces of said sets of silverware did not have an extra deposit of silver at the points of wear so as to be properly represented, designated or referred to by the quality mark 'sectional overlay.'"

Under the NRA, silverware manufacturers adopted standards defining six (low and medium) grades of silverware in which the amount of silver per gross of teaspoons ranged from two ounces in the "A1" grade, to eight ounces in the "XXXX" grade (the intervening symbols of these wholly misleading designations of grades being: "A1+" [or "A1X"], "AA," "XX," and "XXX"—any one of which might be taken by the uninformed to indicate a "top" or an extra-quality grade). Obviously "A1+," "AA," and "XXXX" would almost certainly be taken to mean that the silver so designated was of a top or unexcelled grade, and on account of the present use of the A grading for milk and eggs, the average consumer would be more likely to assume that the "A1+" grade was top grade, rather than the "XXXX"; yet the last named carries four times as much silver plating as "A1+."

When the silverware was purchased by Consumers' Research for test, it was found, as one experienced in retailers' practices might have predicted, that the salesclerks knew nothing of the grade of the silverware they were selling, for they regularly represented the higher-priced brands as being of "top" grade. The results of Consumers' Research's tests showed that two of the higher-priced brands would fall well above the "XXXX" grade, having about nine and one-half and twelve ounces (troy) of silver per gross of teaspoons, respectively, one other brand falling into the "XXXX" grade, and three others into the "XXXX" grade, having between six and eight ounces of silver per gross of tea-

spoons. It is to be noted, however, that the federal specification for silver-plated tableware, which calls for a grade equal to that required for high-class hotel and restaurant service, requires nine ounces per gross of teaspoons, a quality which was achieved by only two out of nine advertised brands tested. Probably few housewives would suppose that the superior grades of nationally advertised silverware, touted in the customary terms of high-snobbery in popular and household magazines, would be of a distinctly lower grade than silverware of those grades which are found economically satisfactory for use in a good hotel or restaurant. (A good commercial restaurant cannot afford to use the low grades of silverware commonly sold to housewives; many housewives, too, cannot afford such an uneconomical purchase but, of course, do not know how badly they are being served by plated-ware manufacturers.) The two lowest-priced brands tested for amount of silver plate fell somewhat below the "AA" (i.e., the fourth) grade, having less than three ounces of silver per gross.

No judgment has been made on the desirability of the pattern, as this, of course, depends upon the individual's taste.

The listings are based on tests for the total amount of silver and thickness of plating measured at several points and a determination of the lead content of the base metal.

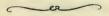
### RECOMMENDED

Gorham Silver Plate, Rosemont Pattern (The Gorham Co., Providence, R.I.) \$8 per dozen teaspoons. Carried by far the most silver of the nine brands tested; also showed the greatest average thickness of plating. Good reinforcement.

Wallace Plate, Lady Alice Pattern (R. Wallace & Sons Mfg. Co., Wallingford, Conn.) \$7.50 per dozen teaspoons. Ranked second of nine in weight of silver plating. Average thickness of plating, good. Thickest reinforcement of all brands tested.

## OUALIFIED RECOMMENDATION

- Community Plate, Berkeley Square Pattern (Oneida Community, Ltd.) \$6.50 per dozen teaspoons. Ranked third in weight of silver. Average thickness of plating, good. Little reinforcement.
- 1847 Rogers Bros., Lovelace Pattern (International Silver Co.) \$8 per dozen teaspoons. Fourth in weight of silver. Average thickness of plating, good. Good reinforcement.
- Community Plate, King Cedric Pattern (Oneida Community, Ltd.) \$6.50 per dozen teaspoons. Fifth in weight of silver. Average thickness of plating, medium. Little reinforcement.
- Wm. Rogers & Son, Georgic Pattern (International Silver Co., Meriden, Conn.) \$4 per dozen teaspoons. Seventh in weight of silver. Average thickness of plating, small. Little reinforcement.



Some Recent Casualties from Carelessly Made Commodities

A toy electric stove caused the death of the four-year-old daughter of a University of California professor. The child's dress caught fire from the present.

A wringer on a washing machine crushed an eighteen-months-old baby girl to death in Punxsutawney, Pa.

A wringer on a washing machine was responsible for the death of a woman in Berwyn, Ill. Her body was found under the overturned machine, her skull fractured, and her hair and right arm twisted in the wringer.

An electric hair dryer caused the electrocution of a twelve-year-old choir boy in Philadelphia, Pa. The boy apparently reached for the gadget with a wet hand and thereby set up a circuit which sent the lethal voltage through his body.

An electric hair dryer caused the electrocution of a thirteen-year-old boy in Highland Park, Ill.



utomatic toasters not only cost more to buy than non-automatic toasters, but they also cost more to operate—fifty per cent more on the average. They are, however, more often constructed so as to toast evenly than are the non-automatic ones. For a consumer whose electricity bill for the use of a non-automatic toaster is \$2 for a year—the estimate of one power and light company, and a reasonable figure—the amount will probably run to \$3 when an automatic toaster is used.

Consumers' Research's tests have shown that in general the toaster which does the job in the shortest time with the lowest operating cost gives less even toasting than the slower-operating appliance; moreover, it produces a different sort of toast. In selecting a toaster apart from the recommendations which follow, one will often have to choose between a high degree of uniformity in toasting or high speed and lower operating cost, for present-day toasters (with a few exceptions) do not combine all three characteristics. Nor, naturally, does the advertising of the toaster manufacturers give the slightest indication of the performance characteristics of one make as against another—distinctions which are the ones of primary importance to consumers.

There are obvious features of a satisfactory toaster which even a casual observer would not fail to notice when the matter was brought to his attention. Well-designed toasters, for example, would not have their doors so arranged that when opened they come into contact with the table top so as to burn its finish, nor would their heating wires be so mounted that they can touch the metal frame of the toaster and charge it with electricity that could cause the death of the user or a child in his family. Yet among the total of thirteen toasters included in the test, three were found (not reported in the *Digest*) which had such defects. It is rather ludicrous, too, that one toaster, although intended to take two slices of bread at one time, was made just a shade too small to do this satisfactorily. The space allowed for one slice of bread should certainly be not less than  $4\frac{1}{2} \times 5\frac{5}{8}$  inches.

With the best of luck, a toaster will occasionally be dropped or struck by accident, and its construction should, therefore, be sturdy—far sturdier than that of many toasters on the market. The design of a toaster should permit easy-and cheap-replacement of the heating element in case it burns out—yet the manufacturer has usually preferred to make a toaster which is about as cheap to throw away as to try to repair, when the heating element breaks. In choosing between toasters, otherwise equally desirable, select the one with a heating element which glows with a dull red color as the one having probably longer working life, rather than one which glows brightly at a cherry red. While it is an obvious convenience that a toaster be equipped with a switch so that it can be turned on and off while at the dining-room table, many toasters have no provision either by a switch or by a plug for shutting off the current at the toaster, and those with a plug will probably burn the fingers of the operator who tries to disconnect it after the toaster has been running for a time. In the absence of a convenient arrangement for turning the current on and off, the user will naturally let the current run longer than necessary, which adds to the monthly bill from the power company.

Consumers' Research has examined and tested six automatic and seven non-automatic toasters. All those of the automatic type toasted both sides of two slices of bread at the same time. All those of the non-automatic type toasted one side at a time, of each of two slices of bread, and turned the toast by the flip-flop method, that is, as the door of the toaster opened, the bread slice was supposed to slide down on the door and to present its other side when the door closed. All non-automatic toasters operate on either alternating or direct current, but some of the automatic toasters are designed for use on alternating current only. The automatic timing of the toasting process was accomplished by means of a thermostat, a simple clockwork mechanism, or a thermostatically controlled clockwork. The latter method as used in the Toastmaster was judged to give somewhat closer regulation. Electric insulation was not found deficient in any of the toasters; they were not, however, tested for quality of insulation under high humidity conditions. Connecting cords (cord sets) were not rated.

# Non-Automatic Toasters RECOMMENDED

Proctor Turn-O-Matic, Cat. No. 1453 (Proctor & Schwartz Electric Co., Philadelphia) \$2.95. 110-120 volts. Doors were interconnected so that when one door opens, the other opens also. Well made. Made toast relatively quickly and economically. The toasting was comparatively even.

# QUALIFIED RECOMMENDATION

Manning-Bowman, Cat. No. 78 (Manning, Bowman & Co., Meriden, Conn.) \$2.95. 110-120 volts. Well made. Medium speed of toasting. The toasting was uneven.

Montgomery Ward & Co., Cat. No. 86—5117 (Electrahot Mfg. Co., Mansfield, Ohio) \$1.37 plus postage. 110-120 volts. Made toast relatively quickly and economically. The toasting was uneven. Cord permanently attached; no means to shut off current at toaster.

# Automatic Toasters RECOMMENDED

Toastmaster, Cat. No. 1B6 (McGraw Electric Co., Minneapolis) \$16. 115 volts. Operates on alternating current only. Automatic feature consisted of a thermostatically controlled clockwork which shuts off the current. Toast is automatically raised to a position partly outside the toaster when ready. The appliance was well made and its performance very good.

QUALIFIED RECOMMENDATION

Heatmaster De Luxe, Cat. No. 20 D 694 (Utility Electric Co., St. Louis; distrib. Sears, Roebuck & Co.) \$7.95 plus postage. 115 volts. Operates on alternating or direct current. Automatic feature consisted of simple clockwork which does not cut off current altogether but reduces it, causing a low heat that would give a dry or "Melba-type toast." Lacked switch which should be provided for sake of convenience and economical operation. Ticking of the clockwork mechanism was comparatively loud.

Manning-Bowman Automatic, Cat. No. 108 (Manning, Bowman & Co., Meriden, Conn.) \$11.95. 110-125 volts. Operates on alternating or direct current. Automatic feature consisted of a simple clockwork which shuts off the current. Comparatively slow in operation. Performance

good.

Sunbeam, Cat. No. T-1-C (Chicago Flexible Shaft Co., 5600 Roosevelt Rd., Chicago) \$10.95. 110-120 volts. Operates on alternating or direct current. Automatic feature consisted of a thermostat which shuts off the current. Equipped with glass signal lens to show when heater unit is operating. This toaster was relatively slow and expensive to operate. Performance good.

# Enlightening the Consumer

The following conversation was overheard in a grocery store: Customer: "What does 'Color Added' on these oranges mean?" Store Manager: "That's just the trade name, madam. It doesn't mean anything."



HIS type of combination appliance is satisfactory for toasting sandwiches and for making waffles, and for grilling foods at the table, but is not desirable for use as an everyday bread toaster, because it costs much more to operate in this use than the usual type of toaster. The Westinghouse grill was the only one of the four tested by Consumers' Research which was not equipped with grids suitable for use in baking waffles. In spite of this deficiency it cost a dollar more than another grill in the test, which bore as illustrious and as expensive a name—that of the General Electric ("House of Magic") Co.—and which did have waffle grids. The appliances were tested for performance of the cooking operations for which they were primarily designed and were found satisfactory. Variations in efficiency between brands, though such variations amounted to more than twenty per cent, were not judged to be of particular significance since the total annual energy consumption of such appliances is not likely, in ordinary household use, to be great. Electrical insulation was not found deficient in any of the sandwich toasters; they were not, however, tested for quality of insulation under high humidity conditions, as is generally done by Consumers' Research for electrical appliances which are likely to be used more frequently and under conditions of use affording greater electrical hazards. All the sandwich toasters lacked guard sleeves as commonly provided on toasters, flatirons, and other electrical appliances, obviously requisite to prevent accidental contact with electrically charged terminals when connecting the plug to the appliance. One manufacturer went so far as to put on half a guard sleeve but did not finish the job of safeguarding this vital point. To avoid contact of the fingers with live terminals, users of the sandwich toasters must, therefore, use a little more care than would otherwise be necessary when connecting or disconnecting the plug. Connecting cords (cord sets) were not rated.

# OUALIFIED RECOMMENDATION

Heatmaster, Cat. No. 20-1886 (Distrib. Sears, Roebuck & Co.) \$3.45 plus postage. 110-120 volts.

Montgomery Ward & Co., Cat. No. 86-5132 (Dominion Electric Mfg. Co., Mansfield, Ohio) \$6.95 plus postage. 110-120 volts. The only appliance of this group equipped with heat indicator.

Hotpoint, Cat. No. 586-5484 (General Electric Co., Bridgeport, Conn.; distrib. Montgomery Ward & Co.) \$8.95 plus postage. 110 volts.

Westinghouse, Cat. No. STC-4 (Westinghouse Electric & Mfg. Co., Mansfield, Ohio) \$9.95, 115 volts. Not supplied with waffle grids.

What Goes Into Shoes Besides Leather

In every 100 pairs of men's and boys' shoes—and these figures are arrived at after a great deal of research work by an engineer in the employ of the United States Leather Co.—there are 82 pairs with box toes of fiber, fiber composition and paper. In other words, 82 pairs out of every 100, when it comes to the hidden parts of the shoes, are made of other than leather. And 81 pairs out of every 100 have counters made of paper and composition; 27 pairs with outer soles made of rubber and composition; 27 pairs with inner soles made of fiber paper and fabric. That indicates the situation so far as men's shoes are concerned.

—James T. Keating at a Senate Committee Hearing on Labeling, Marking, and Tagging of All Boots and Shoes

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# Electric Two-Burner TABLE STOVES

\*\*HREE table stoves, ranging in price from \$6.45 to \$6.95 were tested by Consumers' Research. Of these stoves of comparable price, only one was found to measure up to reasonable standards of performance. Consumers' Research has found in this case of electric table stoves, as in many other instances, that a well-known and well-advertised trade-mark affords no guaranty of fine design and workmanship or even of good value for your money.

In the year 1932, the Appliance Committee of the Association of Edison Illuminating Companies drew up specifications for electric table stoves in two grades, one grade being called "superior grade" and the other "minimum acceptability grade." One of the several "minimum acceptable" requirements was that, starting with a pint of cold water at sixty degrees Fahrenheit in a covered dish, the stove should be able to bring the water to a boil within eighteen minutes. This time was three minutes longer than was to be required of a "superior" stove. With electricity at five cents per kilowatt-hour, the cost of heating the pint of water to boiling was one cent. (Such stoves should never be turned on and off at a pull switch or other switch suitable for turning on and off ordinary lamps of low wattage.)

The Montgomery Ward & Co.'s stove was found to be practical and efficient. Not only was it fast, but it was almost fifty per cent more economical in use of electricity than the stove which showed the poorest performance in the group.

Electrical insulation was not found deficient in any of the table stoves; they were not, however, tested for quality of insulation under high humidity conditions. Connecting cords (cord sets) were not rated.

## RECOMMENDED

Montgomery Ward & Co., Cat. No. 486—5278. \$6.95 plus postage. 115 volts. Measured power of right- and left-hand heating units or "burners," 600 watts and 905 watts respectively. Left-hand burner also had medium and low heats consuming 625 watts and 330 watts respectively. Metal-enclosed heating element. Most efficient of the three table stoves tested.

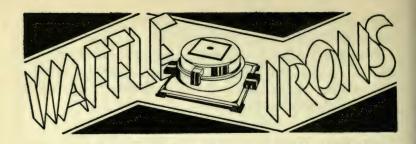
# Disguise Competition—Soak the Consumer

"Let's consider what can be done by changing your combinations. For example, suppose you now feature roast pork, mashed potatoes and apple sauce, which is the standard way of serving roast pork. Instead of that serve roast pork, browned potatoes and pickled crabapple. If you do this then you can get more money for this dish, because it will seem to be something different to your customers. Do you get what I mean? There is no longer any price comparison with your competitors, who are serving roast pork the standard way!

"Now you can do this same thing with every dish on your menu, that is, change the combination, and you can get, thereby, more money for each dish served. Your customer won't realize that he is paying more money. He won't be able to tell you how much cheaper he can get the dish elsewhere because he won't be able to get it elsewhere.

"What will you do if you have a dish that you can't change? Ham and eggs, for example. Why, take it off your menu. Forget about it. Let your competitor sell all he wants to at the cut price. What do you care how much money he loses? The sooner he goes broke the better!"

-Ray Fling in Restaurant Management



Ix brands of waffle irons have been tested recently by Consumers' Research. Contrasting with the results often found in tests of electrical appliances, all six waffle irons in this test did fairly well the work for which they were intended, and the variation in estimated cost of operation was only a little above twenty per cent. With one exception, the models tested disclosed no evidence of electrical hazard to the user, other than lack of a guard sleeve at the plug connections. The waffle irons were all chromium plated. All were equipped with a temperature-indicating device useful as a guide in cooking the waffles, and all but two of the irons had, in addition, automatic temperature control. There was an "overflow groove" on three of the irons to prevent an excess of batter from spilling onto the table, a rather useful feature of design. Electrical insulation was not found deficient in any of the waffle irons; they were not, however, tested for quality of insulation under high humidity conditions, as is generally done by Consumers' Research for electrical appliances, which are likely to be used more frequently and under conditions of use affording greater electrical hazards. All the waffle irons with plug connections lacked guard sleeves as commonly provided on toasters, flatirons, and other electrical appliances, obviously requisite to prevent accidental contact with electrically charged terminals when connecting the plug to the appliance. To avoid contact of the fingers with live terminals, users of the waffle irons must, therefore, use a little more

care than would otherwise be necessary when connecting or disconnecting the plug. Connecting cords (cord sets) were not rated.

# RECOMMENDED

Toastmaster Waffle Baker, Cat. No. 2D1 (McGraw Electric Co., Minneapolis) \$12.50. 115 volts. Operates on alternating current only. Automatic temperature control. Overflow groove provided.

# QUALIFIED RECOMMENDATION

- Proctor Heat Indicator Waffler, Cat. No. 1520 (Proctor & Schwartz Electric Co., Philadelphia) \$6.95. 110-120 volts. Operates on alternating or direct current. Non-automatic. Overflow groove provided.
- Heatmaster, Cat. No. 20—1188 (Distrib. Sears, Roebuck & Co.) \$4.45 plus postage. 110-120 volts. Operates on alternating current only. Automatic temperature control. No overflow groove was provided.
- Westinghouse, Cat. No. WSA-14 (Westinghouse Electric & Manufacturing Co., Mansfield, Ohio) \$9.95. 115 volts. Operates on alternating current only. Automatic temperature control. Lacked overflow groove.
- Wards Standard Quality, Cat. No. 86—5139 (Electrahot Manufacturing Co., Mansfield, Ohio; distrib. Montgomery Ward & Co.) \$4.45 plus postage. 110-120 volts. Operates on alternating current only. Lacked overflow groove. Automatic temperature control. Did not meet a recognized standard safety requirement for electrical insulation (there was an initial "flashover" in the cord plug at 500 volts; but subsequently satisfactory).
- Manning-Bowman, Cat. No. 1646 (Manning, Bowman & Co., Meriden, Conn.) \$5.95. 110-120 volts. Operates on alternating or direct current. Non-automatic. Overflow groove provided. Waffle baking uneven.



ITH all you say [about the non-automatic electric flatiron being a dangerous device] I heartily agree," wrote an executive of one of the state fire prevention bureaus. "My experience in a house which we rented furnished some years ago corroborated very impressively the reports that from time to time come in from our electrical inspectors. Upon two occasions in making nightly inspection of the basement I found white hot irons in contact with combustible material. . . . " Alarmed by the first-hand knowledge which he had acquired through these two vivid experiences of the extreme danger of fires being set by non-automatic electric flatirons, this man arranged not only to have a large red globe glow in the kitchen when the flatiron was connected to the electric circuit, but also to have a red pilot light wired in such a way as to give a similar warning on the second floor just outside his bedroom door.

Because of the ever-present danger of accidentally failing to disconnect an electric flatiron, and the fact that the thermostatically controlled irons are distinctly safer, Consumers' Research recommends that only thermostatically controlled irons be used. Such flatirons maintain a temperature which fluctuates over a limited range and affords a greatly increased margin, and probability, of safety over the non-automatic type.

The ideal flatiron not only must be thermostatically controlled, but it must meet many other requirements if it is

to perform as well as a flatiron should perform. Many women, particularly those who are not of muscular build, will likely judge as too heavy a flatiron weighing as much as six pounds and will prefer one weighing four or five pounds. The area of the soleplate should be twenty-five square inches or more in order that the labor and time required for ironing may be reduced to a minimum. A flatiron that is used for heavy and continuous work should be designed to consume approximately 1,000 watts of electrical energy, for the rate at which heat is supplied in a flatiron consuming only 660 watts is often not adequate to maintain the desired temperature for ironing sheets, tablecloths, towels, and other heavy materials. Higher wattage rating does not increase the cost of operation, for the extra power supply required at any given moment is compensated for by the shorter periods during which the current has to flow. Besides these important general specifications, there are numerous detailed requirements of a more technical nature for safety, durability, effectiveness, and convenience, which a good flatiron must fulfill, as specified by the Appliance Committee of the Association of Edison Illuminating Companies.

For ironing for a small family, a good electric flatiron probably furnishes the most completely satisfactory and practical method and is preferable to a mangle or electric ironing machine.

Consumers' Research has recently examined and tested nine brands of flatirons. Not only were the flatirons carefully inspected and tested in the laboratory for electrical shock hazard, uniformity of temperatures, accuracy of temperature control, speed of heating (with one exception), temperature of handle, etc., but they were also put into practical use by several women well practiced in the art of ironing. Electrical insulation was not found deficient in any of the flatirons; they were not, however, tested for quality

of insulation under high humidity conditions. Connecting cords (cord sets) were not rated.

#### RECOMMENDED

Sunbeam Ironmaster, Cat. No. A1 (Chicago Flexible Shaft Co., Roosevelt Rd., Chicago) \$6.70 (\$7.95 with clothes sprinkler). Thermostatically controlled. 1,000 watt. Operates on alternating current only. Three pounds twelve ounces in weight. Fastest-heating iron of the eight brands tested for speed of heating. Gave good performance; and found very satisfactory by practical ironers.

#### QUALIFIED RECOMMENDATION

Heatmaster, Cat. No. 20—365 (Distrib. Sears, Roebuck & Co.) \$5.65 plus postage. Thermostatically controlled. 1,000 watt. Operates on alternating current only. Four pounds twelve ounces. Medium fast in speed of heating.

Wards Supreme Quality, Cat. No. 86—5098 (Distrib. Montgomery Ward & Co.) \$4.75 plus postage. Thermostatically controlled. 1,000 watt. Operates on alternating current only. Three pounds four ounces. Measured rate of energy consumption was only 880 watts. Medium fast in speed of heating. Did not quite measure up to recognized standard safety requirements for electrical insulation, but believed not to offer a serious hazard.

Hotpoint Modern, Mfr.'s Cat. No. 149F83 (General Electric Co., Bridgeport, Conn.; Cat. No. 86—5497, distrib. Montgomery Ward & Co.) \$8.95 plus postage. Thermostatically controlled. 1,000 watt. Operates on alternating current only. Three pounds eleven ounces (manufacturer claimed three pounds eight ounces). Third fastest-heating iron of eight brands tested for speed of heating. Metal of soleplate easily scratched.

#### 节节节

#### Words, Words, Words

To that strange category which has for a long time included streamlined fountain pens and vitamin-D toilet tissue, we now have added knee-action safety razors and air-conditioned bread. Who knows when extra-mileage chewing gum will be here?



The recommendations in this section are intended for the amateur who wants only to "push the button" and be sure of as good a picture as possible with the minimum of effort.

Amateurs who do not make photography a genuine expert hobby require a camera of low initial cost, simple and inexpensive to operate. A fixed focus roll-film camera of the box or folding (self-erecting-front) type in one of the following sizes: 15/8 x 21/2 inches, 21/2 x 21/8 inches, 2½ x 3½ inches (preferably the latter) is recommended. Cameras taking pictures smaller than 15% x 2½ inches are not recommended for average use. The results obtained with these inexpensive cameras are often interesting but are not to be compared with those given by the higherpriced or professional type of cameras. Cameras, particularly expensive ones, should always be purchased with the condition that if not satisfactory they can be returned for full refund. Fixed focus cameras are emphasized in what follows because a large proportion of the amateur's failures are caused by improper focusing. Unless otherwise noted, shutters of the box and folding cameras listed provide for time and instantaneous exposures.

# Box Cameras RECOMMENDED

Marvel S-20 (Agfa Ansco Corp., Binghamton, N.Y.; distrib. Sears, Roebuck & Co.) \$1.69. 21/4 x 31/4 inches.

From Consumers' Research Bulletin, September, 1936

- Cadet B-2 (Agfa Ansco Corp.) \$2.25. 21/4 x 31/4 inches. Similar to Marvel S-20.
- Shur-Shot Special B2 (Agfa Ansco Corp.) \$3. Front element of lens can be swung out of the field for taking close-ups. Either half-size (2½ x 15% inches) or full-size (2½ x 3¼ inches) pictures may be made. Latter size preferable.
- Shur-Shot Special D6 (Agfa Ansco Corp.) \$3.75. Front element of lens can be swung out of the field for taking close-ups. Either half-size (2½ x 2½ inches) or full-size (2½ x 4¼ inches) pictures may be made.
- Shur-Shot Regular B2 (Agfa Ansco Corp.) \$2.25. This camera and the Shur-Shot Regular D6 listed below are similar to Shur-Shot Special B2 and D6 except that no provision is built in them for taking close-ups and they have a much poorer view-finder.
- Shur-Shot Regular D6 (Agfa Ansco Corp.) \$2.75.
- Baby Brownie (Eastman Kodak Co., Rochester, N.Y.) \$1. 15% x 2½ inches. Shutter instantaneous only.
- Cadet A-8 (Agfa Ansco Corp.) \$1. 15/8 x 21/2 inches.
- Cadet A-8 Special (Agfa Ansco Corp.) \$1.50. Similar to Cadet A-8 except that it has better view-finders.
- Voigtländer Brilliant (Voigtländer Camera Co., Germany) \$9.75. (\$7.75 from Central Camera Co., 230 S. Wabash Ave., Chicago.) Although this camera is no longer manufactured, it is still available in many stores. f7.7 lens. Simple focusing device working from three feet to infinity. 2½ x 2½ inches. Shutter 1/25 1/50, bulb. Gives twelve exposures on a roll of No. 120 film. Exceptionally good full-size view-finder.

#### QUALIFIED RECOMMENDATION

- Brownie Junior Six-20 (Eastman Kodak Co.) \$2.25. 2½ x 3½ inches.
- Brownie Junior Six-16 (Eastman Kodak Co.) \$2.75.  $2\frac{1}{4} \times 4\frac{1}{4}$  inches.

- Brownie Six-20 (Eastman Kodak Co.) \$3. 21/4 x 31/4 inches.
- Brownie Six-16 (Eastman Kodak Co.) \$3.75. 21/4 x 41/4 inches.

# Folding Cameras RECOMMENDED

- Jiffy Kodak V.P. (Eastman Kodak Co.) \$5. 15% x 2½ inches. Fixed focus. Shutter, instantaneous and bulb.
- Jiffy Kodak Six-20 (Eastman Kodak Co.) \$8. 2½ x 3½ inches. Focusing adjustment. Shutter, instantaneous and time.
- Kodak Junior Six-20 (Eastman Kodak Co.) \$10. 2½ x 3½ inches. Fixed focus. Shutter 1/25 1/50 1/100, time and bulb.
- Plenax PD 16 (Agfa Ansco Corp.) \$14.75. Either half-size (2½ x 2½ inches) or full-size (2½ x 4½ inches) may be made. Fixed focus. Shutter, instantaneous and time.

#### QUALIFIED RECOMMENDATION

- Jiffy Kodak Six-16 (Eastman Kodak Co.) \$9. 2½ x 4½ inches. Exactly like the Jiffy Kodak Six-20 except for film size, which increases the cost per picture approximately two cents.
- Kodak Junior Six-16 (Eastman Kodak Co.) \$12. 2½ x 4½ inches. Fixed focus. Shutter 1/25 1/50 1/100, time and bulb. Same comments re size of picture as given to Jiffy Kodak Six-16 apply to this camera.
- Kodak Six-20 (Eastman Kodak Co.) \$14 with Doublet lens. 2½ x 3½ inches. Focusing type. Shutter 1/25 1/50 1/100, time and bulb. Mounting of lens none too sturdy.
- Kodak Six-16 (Eastman Kodak Co.) \$16 with Doublet lens. 2½ x 4½ inches. Focusing type. Shutter 1/25 1/50 1/100, time and bulb. Mounting of lens none too sturdy.



FEW months ago, Consumers' Research received from a subscriber in Upper Darby, Pennsylvania, copies of three letters which describe the intelligent and straightforward way in which she went about the purchase of some sheets. We reproduce these letters as a pleasing illustration of clear understanding and forthright dealing between a retail store and its customer.

February 26, 1936.

Gimbel Brothers, 9th and Market Streets, Philadelphia, Pa. Gentlemen:

In investigating sheets preparatory to buying half a dozen, I find serious gaps in the information available to customers. Through Consumers' Research (whom I have long found reliable, impartial, and trustworthy) I can get some comparative data on sheets; but they give no results of comparative tests of the tensile strength and durability of percale sheets. I must rely, therefore, upon information which the sheet label or the retailer will give me.

Realizing that percale sheets are luxury sheets, I am interested in making my investment as economical as possible, not necessarily in the original outlay but in value received for money expended. I can buy from you three kinds of percale sheets. In the 90 by 108 size, I can pay \$1.99 (Cannon Silvertone), \$2.19 (Mohawk), or \$3.25 (Pepperell Peeress). My choice will be based upon two quantities, neither of which I now know:

- 1. Tensile strength.
- 2. Balanced thread count.

In regard to 1, an interested inquiry on my part elicited from the salesgirl no information whatever. She knows nothing about it; yet I cannot believe that your buyer makes his purchases in ignorance. In regard to 2, the only available "thread count" was by "threads per square inch," the count for Mohawk sheets being 187. This figure is obviously the total of the count in two directions. Also

obviously, it gives absolutely no information as to the relative strength in the two directions: the actual thread count might be anything from 60 and 127 to 93 and 94. Similarly, the count of 207 "threads per square inch" for Pepperell Peeress might be anything from 60 and 147 to 103 and 104.

I shall purchase no sheets from you unless I can get some numerical evaluation of their probable useful life, based upon tensile strength and balanced weave. Can I get the figures from you, or am I forced back to the manufacturer?

Very truly yours, [Signed] Mrs. ——.

# INDUSTRIAL BY-PRODUCTS & RESEARCH CORPORATION

Consulting Chemical Engineers

Textile and Commodity Research & Certification
Gimbel Building—8th and Market Streets

Philadelphia

March 3, 1936.

Dear Mrs. . . . .

Your very interesting letter of February 26th, addressed to Gimbel Brothers, has been turned over to the writer by Mr. Tweed, the buyer of bed linens.

Our organization acts as the Gimbel Bureau of Standards, but is in no way connected with the store itself, aside from the fact that we are retained by Gimbel Brothers to perform their technical and scientific testing.

We take pleasure in giving you the information which you request in your letter, and trust that it will enable you to decide on your purchase. The data which you requested is as follows:—

New Merchandise as received

	Titos alabitistics de l'estitute			
	Thread Count		Tensile Strength	
Mohawk Percale <sup>1</sup> Silvertone [Percale] <sup>1</sup>	93 x 94	(187)	Warp 48.2 lbs.	Fill 58.0 lbs.
(Cannon) Pepperell Peeress	96 x 92 104 x 101	(188) (205)	53.5 54.2	55.0. 70.4

These figures represent the average of a number of determinations on a sample of each item.

The writer will be pleased to hear from you, if you have any additional questions.

Very truly yours,

[Signed] H. S. Schenker.

<sup>1</sup>N. B., The *Mohawk* sheet, while very similar in thread count and tensile strength to the *Silvertone*, is 10 per cent more expensive.

March 4, 1936.

Mr. Herbert S. Schenker, Industrial By-Products & Research Corporation, Gimbel Building, Philadelphia, Pa.

Dear Mr. Schenker:

Thank you for the report on percale sheets given in your letter of March 3. On the basis of the figures which you gave me, I have today ordered six Cannon Silvertone percale sheets, believing them to be the best buy.

I shall watch these sheets with interest to see whether they stand up under steady laundering.

Very truly yours, [Signed] Mrs. ———.

During recent years some sheet manufacturers and merchandisers have yielded to the insistence of consumer demand that more precise information be given to the purchaser of sheets, which, of all common textile products bought primarily for utility and durability, are perhaps most suitable for the average consumer's purchase on a basis of solid technical information. The Chatham Manufacturing Co. has taken the lead and now gives on the label of certain of its sheets the following information important to the consumer: (1) the torn size before hemming, (2) the size after hemming, (3) type of material (muslin or percale), (4) whether the sheet is a first or second, (5) thread count of warp and filling, (6) tensile strength of warp and filling, (7) weight per square yard, (8) percentage of sizing. The two leading mail-order houses have also seen fit to give definite numerical information—which Consumers' Research found in this test, with one exception, to be well substantiated-about some of the sheets which they sell. Marshall Field & Co. is now reported to be adopting the practice of providing specification labels on sheets and other goods. There have been minor instances of the use of informative labels on sheets, but most of the manufacturers, on the other hand, have firmly resisted the urge to provide consumers with detailed and precise information.

Consumers' Research has several times in the past dis-

cussed sheets and has given advice on how to purchase them. If durability is the primary consideration, one should select a muslin, of heavy weight (4.6 ounces or more per square yard), high thread count (74 in the warp and 66 in the filling or better), and high tensile strength (at least 70 pounds in both warp and filling directions). These specifications are those of the federal government for bleached sheets and pillowcases. The grade of sheets having thread count of approximately 64 in each direction will afford comparatively poor service. If, on the other hand, smoothness to the touch or lightness of weight which makes the laundering easier or cheaper are more important considerations, one should select a percale weighing about four ounces per square yard, having a thread count of not less than about 90 in both the warp and filling directions, and a tensile strength which will be above 60 pounds in both directions. The percale sheets cost more and, excepting perhaps the best grades, will be likely to give somewhat shorter service than will the heavier muslins, but if they are sent to a laundry which charges by the pound, the saving in laundry charges will easily outweigh the additional cost of the sheets. For example, a 72- by 108-inch sheet weighs in a five-ounce fabric, 30 ounces, and in a four-ounce fabric, 24 ounces. If the charge for laundering is eight cents per pound, the charge for the heavier sheet comes to three cents more than for the lighter sheet. Assuming that the percale sheet would withstand only 100 launderings, which are fewer than should be expected, the saving in laundering costs would considerably exceed the extra first cost of the percale sheet. The same element of money-saving applies to a lesser extent when the sheets are done at home, since soap and hot water used will be in general proportional to the weight of the sheets. There are the additional factors of more "runs" of the washer being required if heavier sheets are washed, and faster wearing out of the machine, as well as more burdensome work in handling the heavy sheets in the wet condition. The argument in favor of lightweight sheets is practically an argument for percale and fine muslin sheets because muslin in which lightweight has been gained by coarser weave is too sleazy to be satisfactory or durable.

The torn length of sheets commonly sold may be anything from 90 inches or less to 1121/2 inches. Torn length means the length as torn from the bolt of cloth. When finished the sheet is shorter than the torn length by the amount of material used in making the hems, and it is further shortened five or six per cent by shrinkage in the first washings. The proper torn length for a sheet is usually considered to be 108 inches, which makes the final length about eight feet-enough to allow a bottom sheet to be tucked in about six inches at the head and foot of the bed and a top sheet to be tucked in about six inches at the foot of the bed and be folded back 18 inches at the top to cover the blanket. Some state laws require hotels to use 108-inch sheets. The width of a sheet should be two or two and one-half feet wider than the bed on which it is to be used, or 63 inches for a single bed, 72 inches for a three-quarter bed, and 81 or 90 inches for a double bed.

Most of the sheets tested by Consumers' Research had three or four per cent of sizing, while two sheets had several times this amount. Shrinkage in the warp direction was found in all of the sheets and pillowcases in this test, the maximum being seven per cent. Shrinkage in the filling direction was generally less. Difference in shrinkage, however, between brands was small enough so as not to be considered of particular importance. All sheets had tape selvages, a durable type made by adding additional warp threads at the edges and weaving with a modified basket weave.

The bottom hem of all sheets was one inch deep and the top hem either three or four inches. The hem of the pillowcase was in most instances three inches, but one hem was found four inches and another two and one-half inches deep. To increase the amount of service given by a sheet, which wears most either under the shoulders or the hips of a sleeper, a given end of the sheet should be used half of the time at the head of the bed and half at the foot. On this account it would seem desirable to have hems of equal width at both ends of the sheet so that by the law of chance the sheet would be used as frequently one end up as the other. First-quality sheets should have practically no knots, uneven or thickened yarns, thick or thin or open places in the weave, nor broken yarns. It is well to examine a newly purchased sheet carefully for flaws by holding the sheet up to the light. If a sheet is found defective, return it promptly to the merchant.

Long-staple combed yarns make the best fabrics. Cotton fibers vary in length from one-half inch to one and one-half inches. The shorter fibers, which of course cost the mill less, make yarns which are weaker and more fuzzy. Degree of fuzziness may be examined by looking in a good light across the edge of a sharply folded fabric which has been scraped with the fingernail. If short fibers or a low degree of twist were used in spinning the yarn or if the yarns were uncombed, all of which are factors adversely affecting the wearing life of the fabric, the fuzzy nap will be more noticeable in the finished fabric, examined by looking across a sharp fold.

Pillowcases should have a circumference two inches greater than that of the pillows they are to cover and should, after hemming, be six inches longer than the pillows.

Tensile strengths of the sheets and pillowcases were measured as received and also, with one or two exceptions, after five washings when they were found usually, but not always, to be less than the original strength. The sheets and pillowcases were also examined for size, weight before washing, thread count, shrinkage, construction. In addition, abrasion tests using the fabric-abrasion machine designed by Consumers' Research were run as a check on a considerable

number of brands. In every instance the results of these tests were in agreement with the judgment arrived at by the other technical examinations of the fabrics. Variation found in quality of workmanship in the sheets tested shows that a purchaser should make it a practice to examine each sheet or pillowcase carefully at time of purchase for regularity of hems. In the listings the thread count or number of yarns per inch is given in each case first for the warp yarns and second for the filling yarns. The torn size of all sheets was 72 x 108 inches.

Of the fifteen sheets and fourteen pillowcases tested, we recommend those which follow.

#### Sheets RECOMMENDED

Pequot, Cat. No. 204 EA 382 (Pequot Mills, Salem, Mass.; distrib. Cooperative Distributors, Inc., 30 Irving Place, N.Y.C.) \$1.42 plus postage. Muslin. Thread count 76 x 69. Weight per square yard 4.9 ounces. Amount of sizing below average. Tensile strength: before washing—warp 83 pounds, filling 78 pounds; after washing—warp 75 pounds, filling 73 pounds.

Lady Fair, Cat. No. 96-1954 (Distrib. Sears, Roebuck & Co.) \$1.23 plus postage. Muslin. Thread count 74 x 71. Weight per square yard 5.1 ounces. Amount of sizing about average. Tensile strength: before washing—warp 86 pounds, filling 84 pounds; after washing—warp 79 pounds, filling 82 pounds. Catalog specifications reasonably complete.

Penco (Distrib. J. C. Penney Co. chain stores) \$1.23. Muslin. Thread count 75 x 70. Weight per square yard 5.0 ounces. Amount of sizing about average. Tensile strength: before washing—warp 81 pounds, filling 86 pounds; after washing—warp 75 pounds, filling 77 pounds.

Pepperell Regency (Pepperell Mfg. Co., 160 State St., Boston) \$1.69. Percale. Thread count 98 x 90. Weight per square yard 4.1 ounces. Amount of sizing below average.

- Tensile strength: before washing—warp 63 pounds, filling 70 pounds; after washing—warp 61 pounds, filling 59 pounds.
- Pequot (Pequot Mills) \$1.59. Muslin. Thread count 76 x 67. Weight per square yard 4.9 ounces. Amount of sizing below average. Tensile strength: before washing—warp 79 pounds, filling 72 pounds; after washing—warp 67 pounds, filling 64 pounds.
- Wamsutta (Wamsutta Mills, New Bedford, Mass.) \$3.29. Percale. Thread count 104 x 98. Weight per square yard 3.9 ounces. Amount of sizing about average. Tensile strength: before washing—warp 75 pounds, filling 74 pounds; after washing—warp 63 pounds, filling 65 pounds.

# Pillowcases RECOMMENDED

- Pequot, Cat. No. 204 EA 301 (Pequot Mills, Salem, Mass.; distrib. Cooperative Distributors, Inc., 30 Irving Place, N.Y.C.) 37c each plus postage. Muslin. Size 42 x 36 inches. Thread count 74 x 69. Weight per square yard 5.1 ounces. Amount of sizing below average. Tensile strength: before washing—warp 83 pounds, filling 79 pounds; after washing—warp 83 pounds, filling 72 pounds.
- Lady Pepperell (Pepperell Mfg. Co., 160 State St., Boston) 36c each. Muslin. Size 45 x 36 inches. Thread count 73 x 73. Weight per square yard 4.7 ounces. Amount of sizing much below average. Tensile strength: before washing—warp 70 pounds, filling 68 pounds; after washing—warp 62 pounds, filling 70 pounds.
- Pepperell Princess (Pepperell Mfg. Co.) 64c each. Percale. Size 44½ x 39 inches. Thread count 103 x 102. Weight per square yard 4.1 ounces. Amount of sizing below average. Tensile strength: before washing—warp 85 pounds, filling 74 pounds; after washing—warp 75 pounds, filling 66 pounds.



By
H. Bennett\*

SELECTING a suitable apartment is not an easy task. Be cause our comfort and well-being are dependent on a proper selection, it is best to allow sufficient time in order to look at all offerings.

Location. First make up your mind what part of the city you desire to live in. Then determine which neighbourhood is most suitable for your needs. How far is it from transportation lines? How near is it to a school for your children? How conveniently located is the shopping section? Does the immediate vicinity have any objectionable factories which may produce foul odours, smoke or dirt? Are you near a park or recreation centre? Is the neighbourhood too noisy (especially at night)? Are the streets properly paved and not too steep (an important factor for weak people and mothers who must push baby-carriages)? If you own a car, how far are you from a garage and what are its rates?

Cleanliness, Convenience and Safety. Is the building modern and in good state of repair? Are its walks, immediate

<sup>\*</sup>This is Chapter XIII of the recently published volume, More for Your Money, by H. Bennett (\$2.75; 242 pages; published 1937). It is reprinted here by permission of the publishers, Chemical Publishing Company, 148 Lafayette Street, New York, N. Y. Consumers' Digest takes pleasure in recommending Mr. Bennett's volume as a valuable "reference book on how to spend your money to the best advantage on food, clothing, fabrics and textile goods, cosmetics and toilet requisites, articles of domestic use, furniture and other furnishings for the home, etc., etc."

surroundings, and halls kept clean? If it has an elevator is the latter safe and properly cared for? If considering an upper floor, a building with more than one elevator is more desirable as elevators frequently stop running.

Number of Rooms and Location. Now for the apartment itself. How many rooms do you actually need? Taking too few rooms will make you uncomfortable; too many, means a higher rental and expense for additional furniture, etc. The ideal apartment is one which is located at a corner of the building having two exposures preferably southern and eastern. These allow the largest proportions of sunlight and warmth. Northern exposures are cold during the winter. The two exposures permit cross ventilation which is especially valuable during the warm weather.

Windows. Windows should be sufficiently large and placed centrally, not more than three feet from the floor. A room containing one window only, and that in a corner or at peculiar height is not desirable. Inside window ledges at least six inches wide are useful for plants and other decorative articles. Windows should be furnished with suitable screens and awnings in the summer.

Size and Layout. The size of the rooms should be noted, paying particular attention to wall space (a room with too many windows or entrances has too little free wall space). Get a diagram or plan of the apartment and mark all measurements on it. Then take it home and measure all your furniture and see how it will fit in the apartment, under consideration. This is of the greatest importance.

The best general layout of an apartment provides for a spacious foyer or entrance hall containing at least one large guest closet. All rooms should open on this or another foyer. It should not be necessary to walk through one room to reach another. This avoids tracking in of dust and excessive wear of rugs and carpets. The bedrooms and bathroom should not be located near the entrance or kitchen.

The living or dining-room should adjoin the kitchen and have an extra service entrance.

The Kitchen. The kitchen must be sunny and well ventilated and should have a view of the street rather than of a wall or court. This is quite important as the housekeeper spends much of her time here. It should be large and so arranged as to be convenient and cheerful. There should be sufficient room for at least a breakfast-table near the window. Adjoining the sink there should be a wash-tub and dish closets. The latter should not be too high. Opposite this in the darkest corner is the place for the refrigerator. Adjoining this there should be a closet reaching to the floor. To the left of this there should be a cooking and baking gas or electric stove. Sufficient electrical outlets conveniently arranged should be provided for the usual kitchen appliances. The floor should be covered with a heavy linoleum or rubber covering coloured to harmonize with the surroundings and furniture.

Living-Room. A good-sized living-room is highly essential. It is the rest and show room and must be spacious and comfortable. Here the family lounges, plays and entertains.

Bedroom. Bedrooms should be large, well ventilated, and contain at least one large deep closet. The closets should reach at least six feet from the floor and have a shelf at least half the depth of the closet. About six inches under the shelf, there should be a strong bar on which clothing on hangers may be hung.

The bathroom among other things should contain a fullsize bath-tub and standing shower (provided with a waterproof curtain or a glass door, if outside the tub). The medicine cabinet should have a mirror door and be directly over the hand wash-basin. The floor of the bathroom should be of rough tile or other non-slippery water-resistant material.

Additional closets should be present in connecting halls for storage of linens, cleaning supplies, and miscellaneous

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clothes, baggage, etc. Ample closet space is of great importance. Floors should be of even smooth hardwood, properly coated with pure shellac.

Electrical outlets should be plentifully provided in all rooms and halls to take care of floor-lamps, radio, vacuum cleaner, etc. A hall or house phone for communicating with the superintendent is useful in emergencies.

Make sure that there are enough radiators of proper capacity. These should be located under the windows so as not to take up wall space.

In many cheaply built houses, the hot-water lines are close to the cold-water lines, so that the water from the latter is warm. Turn on the cold water and see if it really runs cold.

Cracks, corners, and closets should be examined for bugs and traces of mice. Most good apartments furnish exterminating service at regular intervals to do away with insects and rodents.

Of course, you may not be able to find an apartment having all the good features mentioned at a price within your means. But a careful consideration of all factors will enable you to make the proper decision.

#### Fascism and Butter

Advertising agencies in Germany have been forbidden by official decree from arousing yearnings for butter and other fats, of which there is a shortage, by picturing mouth-watering scenes. Efforts to win new customers may be made for such products as fish, potatoes, or even cottage cheese, but not for butter.

National Butter and Cheese Journal



# By FRAZIER FORMAN PETERS\*

Construction Rules Listed in "Without Benefit of Architect"

F YOU are married "without benefit of architect," you may still want to build, or buy or remodel your own house. Frazier Forman Peters, in a new "how-to-do-it" book, tells you how—simple rules, interspersed with observations on his own bathroom-splashing children, his dislike of painters, and the heated history of the great Heating Plant War.

Pitfalls to avoid, construction specifications to insist on, ways of financing are here made good curl-up-by-the-fire reading for those 98 per cent of the people who hire a contractor but no architect. And there's plenty of interest for the 2 per cent who get the drawing-board and T-square help of an experienced designer.

Condensed here are pertinent ideas the reader can string together to weave many a winter-evening dream.

Rules—(1) Be sure the "spirit" of the house is right.

- (2) Do not put a home on land costing more or less than one-quarter of the cost of the house.
- (3) Do not spend more than two and one-half times your earned income for a house.
  - (4) Get a "pay-as-you-go" mortgage over a long period

<sup>&</sup>quot;This article is reprinted by permission from The Literary Digest, March 6, 1937. It is a most interesting and valuable condensation of the pertinent ideas set forth in a book entitled "Without Benefit of Architect," by Frazier Forman Peters, and published by G. P. Putnam's Sons, New York. \$2. Consumers Digest acknowledges the courtesy of The Literary Digest, Mr. Peters, and G. P. Putnam's Sons in giving permission for the reprinting of this helpful advice for consumers.

—not a mortgage that comes due in a lump amount.

(5) Some people find it hard to pass up an old farmhouse

dying on its feet. Remodeling is never profitable.

Prefabricated Houses—Mr. Peters doesn't like mass-production, "modern" houses. Built of expensive materials, they're small, although convenient.

When buying land, avoid 70-by-100-foot plots, he says. Buy acreage—five, ten, or even twenty acres—and you will be safe.

The purchase contract should be looked over by a lawyer, but you should have a check-list including: Price, terms of payment, bounds of tract, survey, restrictions, water rights, rights of way for roads and public utilities, alterations and additions, title guaranty and date of delivery.

You also must have a water-supply. If it's a well, three to five gallons an hour is enough for a family of five. Don't be fooled by "surface wells." Don't have your water-tank larger than one-half the pump's hourly capacity; you save money and get cooler, fresher water.

Figuring a septic tank, allow a volume equal to one day's average consumption of water—250 to 500 gallons. It should be precast concrete.

Architect—Your plans probably will have to be signed by a registered local architect. Have your builder get the certificate.

Then you may have a general contractor or ten or fifteen separate subcontractors, or a supervising architect.

Your building-contract should follow the standard form of the American Institute of Architects.

Never pay any builder without proof that his labor and material bills are paid—you may find yourself with a lien against your house.

Try to get some free advice and free supervision by conferring with the Building Inspector.

Don't overbuild your cellar; a heated air-chamber under the house is just as good and a lot cheaper. But make sure your foundations aren't going to buckle. Poured concrete as a rule is better than cement blocks, the author feels.

For your outside frame, you can use wood, if you're not afraid of termites, rot or fire.

You can use hand-laid brick, stone and concrete block, fire-proof if you substitute steel for wooden joists and sash. The modern masonry house is of concrete, perhaps faced with stone.

If you build of masonry and continue inside with steel joists and masonry partitions, your home will be termite-proof, crack-proof, fire-resistant and everlasting. And masonry, although twice as expensive as wood, should not increase the total cost more than 10 per cent.

Insist on ready-mixed concrete; don't let your mason skimp.

Most people want fireplaces. If you don't want a smoky one, beware of back draft from trees, hills and other houses, inadequate flues and faulty construction of the throat above the damper.

For outside masonry floor coverings, use cement or bluestone. You can save inside by laying cement and later covering it with tile, slate or bricks.

You can have a good wood frame for little more than a cheap one. Guard against: (1) too sparing use of nails; (2) the use of undersized joists, rafters and headers, and (3) improper bracing of side walls and floor joists. Insist that all corners be braced and that outside sheathing be applied diagonally. For floor timbers, try to get steel girders supported by steel channels, or lally columns. Be sure that the heads of all windows are flashed with copper.

Avoid ornate exterior trim; it rots, goes out of style and costs money.

Only Idaho white pine, cedar and cypress (perhaps chestnut or cedar) should be used for outside trim. Avoid oak and Ponderosa pine. Roof—A simple black slate roof will cost a little more than wood, but less than gaudy roofs of composition, tile, variegated slate or metal.

Wood will last fifteen years, and can be slated later.

If you are pestered by insulating-material salesmen, here are the chief ways of insulating:

By "mirrors" (metal-foil backed papers), by mineral-wool or wood-fiber bats, by quilting of seaweed, mineral wool, or wood-fiber between sheets of paper, by wood-fiber boards. Think of fire-proofing, air circulation inside your walls (necessary to avoid sweating), and proper "tucking in" at joints—eaves, corners, sills and windows.

Guillotine-type windows that slide up and down are the tightest and warmest (and cheapest); steel casements are next; wood casements most expensive, least desirable.

On interior trim, you can save enough to make up for some other point of built-in quality by using stain instead of paint, simple trim, knotty No. 2 white pine for paneling, and by waiting until later for fanciness.

Standard oak flooring is very little more expensive than less durable fir and pine. Avoid wide, pegged boards; they swell, shrink, warp, buckle and go "bang!"

"Standard" grade linoleum is too cheap. Use medium or heavy. Asphalt tile is cheaper, clay tile over cement is "soul-satisfying."

Hardware—For interior door hardware, avoid cheap spun brass, get still less expensive plain iron thumb latches.

Plaster is still the best and cheapest wall covering. Use insulating wall-board for lathing, or metal laths for fireproofing.

You can have the second or "browning" coat of plaster worked to a sand finish, and save on the white coat.

Linoleum makes a good, water-proof covering for kitchen and bathroom and is more plastic than tile.

Painted, compressed wood-fiber board also is good material.

An electrician's greatest expense is material, not labor. Don't skimp on the service connection. Have five outlets to a room, use simple fixtures, get an underwriter's certificate.

Your painter knows how to paint, but you should choose the paint, insist upon sandpapering and cleaning, that the tops of sash and doors be painted, and that the proper number of coats be applied.

Brass or copper plumbing is best. Make sure your sewerpipe is not "standard" (light grade), but "extra heavy."

Heat—You can't get summer air-conditioning yet . . . it's too expensive. But you can get a good heating system and a humidifier.

Which one? Go to a good radiator company and let their engineers decide on steam, hot water, or warm air.

In your oil-burner, if you choose that type, look to the dealer; his service is the main thing.

The author ought to know what to tell newlyweds or experienced home-owners. He's a Connecticut architect, who started out as a chemical engineer and wound up on a farm where he had to build a chicken-coop.

A previous book, "Houses of Stone," shows some of the houses he has built and explains his great love for masonry construction (the chicken-coop turned out to be stone because the first wooden one was destroyed by fire).

Mr. Peters doesn't say architects shouldn't be consulted; far from it. He just points out ideas for people who want to get along without one, and even suggests that an architect or an experienced builder can save money.

When you have gone out and built your house, you may need advice on smoothing little rough spots. Mr. Peters gives it. He also adds ideas on fuel, termite-proofing, kitchen cabinets, lawn grading, budgeting, the "dark horses of the future—steel and concrete," and children who roller-skate indoors.

For them, either a spanking or baked-tile floors that can be mopped clean in a jiffy.



## Expert Services

ocal Farm Bureau Agents, your State Experiment Stations, and State Agricultural Colleges offer the best advisory services obtainable at the lowest cost. Consult them in regard to your problems. It has been estimated that an experiment station in one of the large eastern states costs the people of that state a little less than three cents per capita annually. You will find that you can get your money's worth many times over in expert advice from these sources.

Few home owners can afford the services of a professional landscape architect to assist in their problems of design. Frequently, nurseries from which purchases have been made will offer free of charge a landscape service helpful not only for design but also for the selection of proper types of plants for particular localities. Likewise, few people can afford the tree expert's "scientific planned program for trees" (too often designed to benefit business first), but every tree owner should know what he can do himself and what must be, or is far better, done by the expert.

# Fertilizing Shade Trees

Any recommendations of fertilizing methods for shade trees must of necessity be based largely upon opinion and on analogous work with orchard trees, as research is just beginning in this field (see *American Nurseryman* for October 1, and October 15, 1936). Starvation, including effects of drought, is the most common cause of death. In watering a tree, there seems to be little advantage in spiking the soil deeply with a fork, since but little water runs into the holes.

Water penetrates the soil when the upper regions are saturated. For round-headed trees, not only should the ground continue to be soaked for a long time beneath the tree but the thorough soaking should extend also in a wide band around and beyond the outside "drip" of the leaves. For spire-shaped trees, wetting close to the trunk may be omitted and confined only to a wide band, the inner boundary of which is about half the height of the tree in distance away from the tree trunk. Soils with a water-holding capacity of thirty-five per cent (not unusual) require approximately three gallons per square foot of surface to saturate the surface foot of soil, if dry. I Trees that need fertilizer are those with dead limbs or twigs, those to be pruned or treated for disease or injury, or those growing too slowly as shown by short terminal growth (less than four inches for maples or elms). Fertilizers spaded into the soil may bring roots to the surface for food. This does not mean that roots from other areas will be drawn to the top, but only that new roots will tend to grow upward. It is not fully established that this is necessarily harmful. One expert believes that if the roots actually obtain needed plant food near the surface, the root system as a whole should be benefitted thereby. Obviously, this method would not be desirable for trees whose roots had been drawn surfaceward previously, since they would be subject to injury during the process of spading in the fertilizer. A fairly good method of supplying artificial food to trees is to make crowbar holes one and a half to two feet deep, one to two feet apart, in a wide band around the tree as described above. Into each hole place a high-nitrogen complete fertilizer, then water, and finally fill with soil. The total amount of fertilizer to be used is recommended as onehalf pound for each inch of trunk circumference at a point three feet above ground. Some tree surgery firms use another method for injecting fertilizer: Holes are drilled and fertilizer is forced through the soil under high air pressure.

This procedure may possibly be valuable for breaking up hard subsoils as well as supplying fertilizer to the soil.

Experiments at Columbus, Ohio, show that "complete fertilizer high in nitrogen and ammonium sulphate plus superphosphate, appear to have been the most beneficial" of several types tried.

One expert takes exception to some of the previous statements on fertilizing trees and comments as follows:

"Nitrogen is the element which is most effective in tree fertilization and in view of the fact that available nitrogen is carried downward in soil by water very readily, I can see no reason for digging this fertilizer into the ground at all. Experience in orchard fertilization with inorganic nitrogen fertilizers will bear out this point of view. If phosphorus and potassium also are added, however, it would probably be advantageous to work them into the soil to a depth of three or four inches.

"The evidence on the value of air-pressure fertilization is so meager and unreliable, and the indirect evidence of all we know about the physiology of plants from experiments on other plants is so strongly against it, that this method should be recommended with unusual reservations, if at all. My opinion is that, if a tree survives such treatment, it is strong evidence that nature is indeed marvelous. I'm afraid that the chief virtue of the method is that you have to hire a tree surgery firm to do it."

### Spraying

Serious insect attack weakens a tree, and defoliation for three successive years kills it. State Experiment Stations can often recommend a man who will do small spraying jobs at a low price. The Park Boards in many cities and towns can offer expert advice, and in many cases will do the necessary spraying. Tree surgery firms may be expensive for small jobs unless neighbors cooperate to offer several jobs close together. Be sure the work is done at the best time for control, not when the company needs work for a slack period.

This is especially important when the spraying is to be done on fruit trees. Consult your State Experiment Station as to when these should be sprayed to insure the most desirable, and at the same time safe, fruit.

### Prevention of Injuries

All mechanical injury to trees should be avoided. A hard blow dealt by an automobile kills the cambium even when the bark is not broken. (The cambium is the layer of growing tissue between bark and wood.) Wires, chains, or clotheslines drawn tightly around a tree will strangle it, often in less than a year. Climbing spurs should never be used on live trees that are to be preserved.

Pruning and bracing may prevent serious injury. These measures often require expert judgment and for valuable trees are best left to a good tree surgery firm.

### Pruning

Branches growing fast at the expense of the rest of the tree should be cut back. When two branches rub, one must be removed. For certain weakened trees, e.g., rock maples whose central branches tend to die at the top, some of the lateral branches should be cut out, one or two at a time over a period of years, before the center is dead. It is better to shorten a long, structurally weak branch then let it break in a storm. V-crotches with a swelling below; three or four limbs from the same crotch; long, wide-spreading branches heavily weighted with foliage at the end; and limbs which behave differently from the rest of a tree in strong winds—all indicate weakness.

When transplanting young trees (also shrubs), it is well to prune back some of the upper branches. Since it takes some time for roots to establish themselves in a new position, the supply of water they can absorb from the soil and pass up to the foliage is naturally limited. By cutting back the upper branches of such a plant, the roots have less leaf surface to feed, with the result that the young plant "takes

hold" in its new situation much more quickly than if left unpruned. This is not so necessary when the transplanting is done during the dormant stage of the plant.

#### Bracing

Bracing (tying or supporting limbs with cables, rods, wire, etc.) structurally weak trees should be resorted to only when pruning will not solve the problem. There are good and poor methods of cabling. For valuable trees call in an expert. Coarsely threaded one-quarter inch to three-quarter inch screw-eyes with small "eyes" are better than bolts, because only one wound is made. If a bolt or screw-eye is too thick, the limb may break at that point. Cables should be over half the distance out from a crotch. (See *Cornell Extension Bulletin 312*; reference at end of this section.)

# Treatment of Injuries Tree Paints

Do not underestimate the seriousness of wounds one inch or even one-half inch across, particularly on choice trees or shrubs. Every cut should be promptly shellacked, disinfected, and waterproofed, and the work must be followed up from year to year and defects repaired promptly. It is advisable to cover a large wound with additional waterproofing each year.

#### RECOMMENDED

Orange Shellac. Apply a good coat, within three or four minutes (at most) of making any cut, to the cut edge of bark, the cambium, and outer sapwood, to prevent the drying and death of the cambium. Not sufficiently permanent for large wounds. For larger wounds, cover the shellac with spar varnish or paint.

Bordeaux Paint. When infection may be already in the wood, use Bordeaux powder (poison) mixed with raw linseed oil to the consistency of thick paint, where creosote is in-

jurious.

Creosote and melted asphalt in equal proportions by weight. Use when infection may be already in the wood.

Creosote, inflammable, dangerous caustic, caution. Not suitable for cherries, peaches, plums, magnolias, and tulip trees.

#### QUALIFIED RECOMMENDATION

A.C.E. Asphalt Chromate Emulsion (E. I. du Pont de Nemours & Co., Inc., Paint & Varnish Division, Philadelphia) \$1.25 per gallon. Waterproof dressing applied cold over the entire shellacked surface. Apply with a swab.

Black Valdura Improved Asphalt Paint (American Asphalt Paint Co., Chicago) 80c per quart, \$2.20 per gallon. Used like A.C.E. Durable. Must be cut with linseed oil in cold weather.

#### Tree Repair and Cavity Work

Every broken limb or other kind of wound offers entrance to insects and rot-producing fungi and should be attended to promptly. (See Farmers' Bulletin 1726 and Cornell Extension Bulletin 312 for methods; references at end of this section.) Treatment of long-neglected wounds requiring the removal of all decayed wood, often results in leaving a cavity. Filling a cavity does not strengthen the tree. Shallow cavities are always better without filling, and deep cavities are much safer left unfilled after treatment than filled with concrete, whether solid or in sections. Both filled and unfilled cavities must be watched for defects.

Concerning tree wounds and cavities, one expert advocating simple methods comments as follows:

"The practice of orchardists on wounds and cavities in trees is probably as good as any. They do their pruning in winter, when insects and fungi are inactive. The wounds dry somewhat on the surface, and no further attention is paid them unless they are quite large, in which case a little asphaltum paint may be used, but usually is not. Branches with cavities which are so extensive as to endanger the branch are sawed off; if such a cavity occurs in a trunk, the tree is allowed to go until it blows over, and a new one is planted."

#### RECOMMENDED

Wood Fillings, in long strips. (See Farmers' Bulletin 1726; reference at end of this section.) Best method. Has a public-service patent and may be used by anyone. Requires more skill than do other types.

### QUALIFIED RECOMMENDATION

Nuwud (F. A. Bartlett Tree Expert Co., Stamford, Conn.) The best plastic filling. Patented, and used only by the Bartlett Co.

# Moving of Trees

Small trees are more easily transplanted than large ones, and the probability of their successful growth is greater. Furthermore, the small ones will overtake the larger ones within a few years. To move large trees, employ a firm with established reputation for such work. The risk of moving a big tree is measured by the cost of a guaranty (from 10 per cent for elms to 50 per cent for white oaks). A twentyfive-foot elm may cost \$85, with guaranty. Have the treemover select the tree, because this requires expert judgment. The new location should be very favorable, the tree pit large, and well prepared with good soil. Always get a two-year guaranty, the contractor to watch for borers (almost sure to appear), and the client to water the tree. Few amateurs know how, or how much, to water. Ask the contractor for definite directions, and keep in touch with him. The tree must be watched for five years; normal terminal growth and fullsized leaves indicate recovery.

# How to Choose a Tree Expert

In states where tree surgeons are licensed, e.g., New Jersey, Connecticut, Rhode Island, Maine, New Hampshire, Ohio, and (soon) Massachusetts, always ask to see the license. The American Society of Arborists (517 Peoples Bank Bldg., White Plains, N. Y.) is, on the whole, a good group; choose small, rather than very widely extended, companies. A few ratings are given for general reliability, with

the reservation that the best tree experts, like the best doctors, may make mistakes and that the worst have some satisfied clients.

One qualified consultant adds: "Never hire a tree expert unless you are sure you know what should be done and how it should be done, and unless you can stick around and boss the job."

#### RECOMMENDED

- H. L. Frost & Higgins, Mill St., Arlington, Mass. Very expert with wood fillings.
- L. H. Maeder, 75 Westminster St., Providence, R. I. Sometimes uses wood fillings.
- Charles F. Irish, 418 E. 105 St., Cleveland. Mr. Irish himself is an expert diagnostician. Great reputation for tree moving. Uses concrete fillings.
- F. A. Bartlett Tree Expert Co., Stamford, Conn. Good company. Plastic fillings.

#### References

Treatment and Care of Tree Wounds, Farmers' Bulletin 1726. Washington: United States Department of Agriculture. New. Excellent detailed directions for methods of tree surgery.

Tree Bracing and Wound Treatment in the Orchard, Cornell Extension Bulletin 312. Ithaca: N. Y. State College of Agriculture, 1935.



### Consumergrams

If the present trend of obsolescence continues, the day will come when it will be unfashionable to possess a model of anything which is dated earlier than 1940. Styles of 1938 and 1939 will be already passé by the end of 1937.

Canned French fried potatoes are among the latest bits of evidence that there is afoot a movement to cultivate degeneracy in the consumer's taste for food.

In the face of a rapidly accelerating inflation—which simply means rising prices—a large part of the consuming public is going to find itself, without the assistance of any demagogic leadership, engaging in a "sit-down."



department stores may not be suited to local needs since such stores often carry only a limited supply of implements suggested by the salesmen, perhaps more for salability than for practicability. A salesman's testimony as to the popularity of certain "best sellers" is an unreliable guide. There are many slightly different styles of tools, most of them being too heavy; buy the lightest, smallest tool that is strong enough to do the work.

A hoe, a spade, and a rake are the three most essential and useful tools for the backyard gardener. Gardeners have divers opinions on what additional tools or types of tools are most convenient and easiest to use. Many prefer the heart-shaped (Warren) hoe as a good all-round cultivator and weeder that is easy to handle. Some prefer a spading fork to any type of shovel for spading in dirt which is not too closely packed. Some find a simple hand cultivator more satisfactory for cultivation between rows of plants; but apparently there are as many who dislike the man-pushed wheel cultivator and seeder as there are those who find it a convenience. The effort required to push this implement in anything but a well-prepared and mellow soil is so great that some home-gardeners find they must have a helper to pull with a cord while they push on the handles. The wheel cultivator with a large diameter wheel, say two feet, will push easier, other things being equal, than will a cultivator with a smaller wheel.

One important thing to look for in a tool is the method of attaching the handle to the blade, the working part of the tool. The weakest and a very common and cheap way is to drive the shank or tang into the end of the handle; this is usually protected from splitting by a ferrule. This construction will probably afford poor service and a short life, particularly if the tang is held only by friction and has no pin or rivet passing through it and the handle. Rake handles are usually of this sort, with or without the fastening pin or nail. A better type of construction common for shovels and the more expensive hoes is to fasten the handle into a socket which is forged integral with the blade. Handles made from improperly seasoned wood will shrink and, even in an implement of otherwise correct construction, will work loose and give unsatisfactory service. Cheap tools, and some not so cheap, have handles made of dead, and thus weak, wood, which cannot be detected until the handle breaks off short under very moderate strain. It is usually advisable to have the handle of a hoe, measured from the blade, four and one-half feet or more in length, and that of a rake about a foot longer. The blade itself should be made of steel, and be not too brittle (so that it might crack) but hard enough to resist excessive wear or bending. A crude test which the buyer himself can make is to strike the tool against a concrete floor or other hard object. If a tool is correctly tempered it will often have a clear ring or note when struck; but not all tools with such a ring are correctly tempered, and the test is therefore not a sure one but only one of several indications. In the better-made tools, the blade and the tang, or shank by which it is fastened to the handle, are made together as one piece of metal, but in the poorer grade of tools, the blade and tang may be made of separate pieces of metal riveted together. In some tools, such as twoprong weeding hoes, where there may be only a single rivet holding the blade and tang together, it is almost certain that the blade will eventually work loose, and the very best

riveted connections at points of severe strain are likely in time to prove a source of weakness. A polished hoe or spade will slide through the soil more easily than a rough, unpolished one and should be chosen by the gardener who is prepared to take good care of his tools and put them away clean and dry every time he uses them.

Care of Tools. The usability and life of a garden tool are greatly influenced by the care taken of it. Tools should be kept in dry, airy places to avoid rusting from moisture. A garage or dry tool house is much better for storage than a cellar, which is apt to be damp. Tools should be kept clean; fresh earth is much easier to remove than a layer of hard, caked dirt. The lawn mower should be cleaned by brushing after each mowing. It should be oiled frequently with a light oil; never try to sharpen it with a file. When storing it for the winter, hang it up, or place it on wooden blocks, so reversed that the bed knife is above. Before putting other tools away for the winter, a general overhauling is desirable. Hoes, spades, shovels, sickles, etc., should be sharpened. The metal parts of all tools will benefit from an oiling with old (or new) crankcase oil. Repairs may be made at this time advantageously. The prudent gardener will not only allot a special space for each implement but also see to it that tools are always returned to their respective places, thus keeping an orderly and readily accessible tool house.

A. M. Leonard & Son, Piqua, Ohio, sell a selected list of tools which includes a great many of those recommended in the following listings. They issue a small illustrated catalog. They make no extra charge for packing.

### RECOMMENDED

Oliver Ames Shovel, No. 2 (Ames Baldwin Wyoming Co., Parkersburg, W. Va.) Price varies. Regular weight, very well balanced. Probably the best American shovel.

Oliver Ames Spade (Ames Baldwin Wyoming Co.) \$2. First quality, regular size and weight.

Ladies' Shovel, No. 115 (Ames Baldwin Wyoming Co.)

- \$1.25. Blade 7 x 10½ inches, 49 inches over-all, lightest weight shovel of good quality. A favorite, too, of many men, for light work.
- Pony Shovel (Ames Baldwin Wyoming Co.) Regular No. 2 size but lightweight. Price varies. Short or long handle; long handle usually the more useful.
- Hercules Long Handle, Round Point Shovel, Cat. No. 99—8295 (Distrib. Sears, Roebuck & Co.) \$1.39 plus postage. Blade 9 x 11½ inches, of medium carbon steel, polished. Handle 46 inches, held in tubular socket by two rivets. Balance, good. Indicated durability, good.
- Campers' Shovel (The Wood Shovel & Tool Co., Piqua, Ohio) \$1.35. Small size, light and strong.
- Merit Short Handle, Square Point Shovel, Cat. No. 99—8268 (Distrib. Sears, Roebuck & Co.) \$1.15 plus postage. Blade 7½ x 12 inches, of medium carbon steel, polished. Handle 27 inches, held by three rivets in socket split for part of its length. Balance, good. Indicated durability, good.
- Anniversary Garden Hoe (Distrib. The George Worthington Co., Cleveland) 95c. Blade 4½ x 6 inches, forged from medium carbon steel, polished. Handle 55 inches, held in tubular socket by two nails. This socket and the blade are forged as one. Balance, good. Indicated durability, good.
- Corn Hoe (American Fork & Hoe Co., Cleveland; also Union Fork & Hoe Co., Columbus, Ohio) \$1.15. Blade 7 x 2½ inches, handle 52 inches. The Meadow Hoe and the Ely Tobacco Hoe are similar to the Corn Hoe. A 7-inch shallow blade is usually best for home gardening.
- Round Top Onion Hoe (American Fork & Hoe Co.; also Union Fork & Hoe Co.) \$1.25. Blade 7 x 3 inches.
- Hercules Heart-shaped (Warren) Hoe, Cat. No. 99—8446 (Distrib. Sears, Roebuck & Co.) 98c plus postage. Blade 43/4 x 6 inches, forged from medium carbon steel, polished. Handle 52 inches, held in tubular socket by two

nails. This socket and blade forged as one. Balance, good.

Indicated durability, good.

Hercules Bow Garden Rake, Cat. No. 99—8388 (Distrib. Sears, Roebuck & Co.) 95c plus postage. Rake 14 inches wide, 14 curved teeth 3 inches long, forged from mild carbon steel. Handle 60 inches. Two tangs join and are held in end of handle with one nail (good construction). Balance, good, Indicated durability, good.

Anniversary Bow Garden Rake (Distrib. The George Worthington Co.) 95c. Rake 14½ inches wide. 14 curved teeth 3 inches long, forged from mild carbon steel. Handle 60 inches. Two tangs join and are held in end of handle with one nail (good construction). Balance, good.

Indicated durability, good.

Floral Rake (American Fork & Hoe Co.; also Union Fork & Hoe Co.) 60c. Rake 6 inches wide. Six curved teeth 2½ inches long. Handle 48 inches. For special light work only. Excellent cultivator. Recommended for its great convenience for many uses.

Gumfinger Rake (Sabin Machine Co., Cleveland) \$1.25.

Lawn rake with rubber teeth, 20 inches wide.

Yamade Brum Rake (Geo. W. McGuire, Whitestone, L. I., N. Y.) \$1.25. Best-quality bamboo, steel-reinforced lawn rake.

Eureka Weeder, No. EL 4 (American Fork & Hoe Co.) 70c. Cultivator, three teeth. Handle 48 inches.

True Temper Turf Edger or Cutter (American Fork & Hoe Co.) \$1.20. Blade 9 x 5 inches, forged from medium carbon steel, polished. Handle 48 inches. Tang driven into end of handle. Tang and blade forged as one. Balance, good. Indicated durability, good.

Garden Raiser, No. 3 (Alexander Mfg. Co., Ames, Iowa) \$7. Probably the best light-wheel cultivator sold.

Mason's Trowel (Wm. Johnson, Newark, N. J., makes a good one) 45c. 5-inch blade. Does not take the place of a garden trowel, but is a good hand cultivator and weeder.

- True Temper Trowel (American Fork & Hoe Co.) 90c. Drop-shank model with solid socket is one of the best made.
- Garden (Nurseryman's) Trowel. A good grade costs about 50c. 6-inch blade; blade and shank in one piece. Wooden handle. Do not confuse with the undesirable narrow "transplanting" trowel.
- Merit Hand Cultivator (Distrib. Sears, Roebuck & Co. retail stores) 8c. Very good value. The same tool, all metal except for a wooden handle-end, sold in 10-cent stores at 10c.
- Kunde Model, Pruning Shears (Distrib. A. M. Leonard & Son) \$5. Slender, pointed blades, heavy frame, rubber-covered handles. First choice of experts.
- Disston Pruning Shears, No. 154 (Henry Disston & Sons, Tacony, Philadelphia) \$3.30. Two blades. Volute spring, which is durable.
- Lopping Shears (Tiffany Mfg. Co., Conklin, N. Y.) \$2.75. A strong long-handled pruner with narrow blades for working in small spaces. 20-inch length a good size.
- HKP Forester (H. K. Porter, Inc., Everett, Mass.) \$5.50. The best pruner for heavy work, clearing brush, etc. Makes a close cut, but jaws too heavy for very narrow spaces. All parts replaceable. 27-inch size, capacity 1½-inch diameter.
- Electric Hotbed Units (General Electric Co., Schenectady, N. Y.) Indicating thermostat, \$9; 60-foot heating cable \$3.75. To this add cost of connecting to nearest electric outlet. At 7c per kilowatt initial rate, costs about \$2 a month for two-sash hotbed. Cheaper than manure, when once installed.
- Veneer Bands (Albany Box & Basket Co., New Albany, Ind.) 4 x 4 x 4 inches with no bottom, \$2 per thousand. Thin wood strips. Fold to make square pots with or without bottom. Used extensively by commercial growers for

- transplants which are hard to move in large sizes, and as collars to protect plants from cutworms.
- Earthenware Pots have proved the best plant containers. Should be kept on a moist surface.
- Feeny Duster, Models D and F (Feeny Mfg. Co., Muncie, Ind.) Model D, \$2.50; F, \$4.50. Plunger type with extension nozzle. Efficient, though flow of dust is not steady. Larger size much the easier to empty and refill for changes of dust.
- Pomo-Green Dusters (Feeny Mfg. Co.; distrib. Niagara Sprayer & Chemical Co., Middleport, N. Y.) Identical with the above.
- Platz Green Hand Duster (Distrib. P. O. Roediger, Vineland, N. J.) \$6. Capacity two to four pounds. Bellows type, light, easy to use; the most efficient hand duster.
- Handy Box Duster (Keystone Box Co., Pittsburgh; distrib. Clean Home Products Co., Chicago) 25c each; singly, perhaps a little more. Cardboard box, bellows type, holds two pounds of dust. Recommended if a separate one is used for each kind of dust. Much better than dollar-size metal dusters. Specify that you want it empty.
- March Automatic Lawn Sprinkler (March Automatic Irrigation Co., Muskegon, Mich.) Small size, \$18. Large coverage, for flat lawns. Very durable, efficient.
- Cricket Type Sprinklers (W. D. Allen Mfg. Co., Chicago)
  Box of four, \$2.50. Inserted in short sections of hose.
  Small coverage, fine mist. Suited to uneven lawns, where areas vary in water requirements.
- Lark Tee Sprinkler (Distrib. golf-course supply companies) \$7. Large coverage on low-water pressure.
- Cast Brass Fan Sprinkler, Cat. No. 9—6956 (Distrib. Sears, Roebuck & Co.) 35c plus postage. Hose nozzle, convenient shape.

NOTE: Previous articles for the home gardener have appeared in Consumers' Digest: "Seeds for Spring Planting" (February); "Selecting Good Native Plants" (March); "Fertilizers and Soil Amendments" (April). 25c a copy.

#### POISON IVY

Don't Let It Spoil a Vacation

R. A. WANDLING

OISON ivy can quite effectively ruin vacations, have disastrous effects as an aftermath of holidays and picnics, and cause the loss of many days' work following an outing. To those who have suffered the effects of poison ivy, these facts are sufficiently clear.

People vary in their susceptibility to the poison. There are some who claim they are immune and who, in fact, have come in contact with the plant without any effect. At the other end of the scale are those who are so susceptible that very minute quantities will produce a rash. As small a quantity as  $\frac{1}{20.000,000}$  of an ounce of the active principle has caused a mild poisoning. It has been estimated that seventy per cent of the people are sensitive to poison ivv.

Poison oak and poison sumac also cause symptoms similar to those of poison ivy. However, since the same preventive and remedial measures apply, they will not be discussed

separately.

Poison ivy is probably the most ubiquitous in this group, being found in almost all parts of the United States. The chief characteristic of poison ivy, which is also common to poison oak, is the leaves, which are always found in groups of three leaflets, so the old saving, "Leaflets three let it be," is well advised. Poison ivy grows as a vine or bush and is found particularly in uncultivated soil. It seems to be particularly attracted to fences along roads, fields, and woods, uncultivated berry and brier patches, etc. Inasmuch as a detailed description unaccompanied by pictures of the plants themselves would be inadequate, it is suggested that those wishing detailed information write to the Superintendent of Documents, Washington, D. C., enclosing five cents in cash (stamps not acceptable) asking for Farmers' Bulletin No. 1166, Poison Ivy and Poison Sumac and Their Eradication.

This pamphlet gives an excellent description of these plants, accompanied by photographs which should be very helpful in identifying them. As with other diseases, the best method of attacking ivy poisoning is prevention, which, in this case, means first recognizing the plants and then staying away from them. It is important not only to avoid the plants but also to avoid all contact with implements, clothing, or animals which may have come into contact with them. Animals seem to be immune to this poison, since they can come into contact with it without suffering any apparent effects. However, the poison may be transferred to their skin or fur as a result of their contact, and from them the poison is transferred to any individuals who come into contact with their skin or fur. Many people are so susceptible to this disease that they believe they can acquire a case of poisoning by merely passing to the windward side of poison ivy. However, the poisonous principle has been discovered to be nonvolatile, and such cases are improbable. Since all parts of the plant are poisonous with the exception of the ripe berries, it is possible that the small fibrous hairs attached to the back of the leaf may become detached by the wind and be carried into contact with the sensitive person's skin, or the person may unknowingly come into contact with some other contaminated article or implement. In the autumn, the leaves of the plant change to very brilliant colors of red and orange, and as the poison is present the year-round, many persons are poisoned as a result of their attraction to these brilliantly colored leaves, which they pick for decorations or other purposes.

The eradication of the plant must be carried out with great care and should be done preferably by those immune to the poison. Even those who are immune should use every precaution to prevent contact with the plant, since immunity seems to be lost at almost any time, and once lost may never be regained.

Several methods for eradication of poison ivy are avail-

able. The choice of the methods used depends on the quantity of the ivy, where it is located, and its relation to other vegetation in the immediate area. For small clumps of poison ivy, probably the most satisfactory method is to cut off the plant and dig out the roots. One should not throw the plants in a fire, since small unburned particles may blow away and cause poisoning of people with whom it may come into contact. Another method of eradication is the use of chemicals, such as various weed killers, or the use of a salt solution. The disadvantage of this method is that these chemicals are likely to kill other vegetation which they touch. The salt solution, which is prepared by adding three pounds of common salt to one gallon of slightly soapy water, is applied as a fine mist by an air-pressure or hand-operated sprayer. These methods should not be used, of course, where valuable trees and shrubs are in the immediate neighborhood. Crankcase oil thinned with kerosene until it can be sprayed is also effective in killing poison ivy and is used in the same manner as the solution of salt. It is also important not to use this preparation where it is likely to come into contact with valuable plants.

\* \* \* \* \*

The symptoms of poisoning vary in different individuals depending on the amount of poison on the skin and the person's relative susceptibility. They may vary from a slight redness, to itching, to enormous swelling. In the milder cases, there are numerous small blisters which contain a colorless serum. This serum is not poisonous and, when the blisters are punctured or broken, does not spread the poison.

If it is known that you are going where you might come into contact with poison ivy, it is well to wash the exposed parts with thick suds of strong laundry soap, permitting the soap to dry on the skin. In the field, keep as much of your skin covered as possible. Iron salts, such as ferric chloride, have long been recommended as preventive and remedial measures for poison ivy. Recent information, however, has

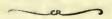
disclosed that these salts are not without danger of unfavorable and distressing results. The iron apparently may form a deposit under the skin, causing a permanent pigmentation. Such reported cases are not numerous, but since there are other measures which are equally effective, it seems inadvisable to subject oneself to even the remotest possibility of such a disfiguring reaction.

The injection treatment for the prevention of poison ivy has received some attention and has, in control experiments conducted by a government service, proved to be effective when used in the proper dosage. These injections are given by a physician.

If you know or suspect that you have come into contact with poison ivy, immediately wash the exposed surface several times with strong laundry soap, using plenty of hot water, running, if possible. Use a thick lather and rinse well between washings. If a basin is used, the water should be thrown out after each rinse, since rinsing in contaminated water may serve to spread the poison. Scrubbing with a stiff brush should be avoided, since it may cause abrasions of the skin and thus permit the entrance of the poison. A five per cent water solution of potassium permanganate seems to have success as a remedial measure. This, however, leaves a brown stain on the skin, which may be removed by the application of lemon juice. Pure alcohol may be used as a preventive of the poisoning if contact with the poison has been established or suspected. This, however, must be done very thoroughly and carefully by making several swabs of absorbent cotton, dipping each in the alcohol, rubbing over the exposed surface, and immediately discarding. This should be done repeatedly, covering only an area about the size of a silver dollar with each swab. Alcohol is a solvent for the poison. If not removed immediately, the alcohol will evaporate and permit the poison to remain, or possibly to spread. It is important that clothes that have come into contact with the poison should be thoroughly

washed in good hot soap and water and run through several rinses, since the poison may lodge on them and cause the occurrence of a case of poisoning on the wearer of the clothes several months after contact with the poison.

Once the poison develops, it has a tendency to be self-limiting, running a course of from three to ten days. This self-limiting characteristic of the disease is often responsible for the apparent miraculous cures claimed for certain specific remedies, which, in fact, had simply been applied at the time when the poison had exhausted itself. This characteristic is also responsible for the condemnation of other remedies applied during the early stages of the disease. For cases of mild inflammation, a strong solution of Epsom salts is considered one of the best remedial applications, since it tends to relieve itching and limit the inflammation. As soon as the worst stages of inflammation have passed, simple talcum powder or powdered cornstarch may be soothing to the skin. For serious cases of ivy poisoning, one should invariably consult a physician.



BERMUDA is by no means the only place where a delightful honeymoon can be spent, but it is certainly one of the most ideal. Bermuda is, perhaps, the most isolated piece of land on the globe, yet it can be reached by the comfortable steamers

of the Furness Line in less than two days from New York City. Sailings are frequent, and a round-trip passage can be had for as little as fifty dollars.

While the rush season in Bermuda travel falls in the winter months, the June weather of the islands leaves nothing to be desired.

A Honeymoon in Bermuda June temperatures are likely to be several degrees lower in Bermuda than they are in New York City.

The peaceful charm of Bermuda is enhanced by the absence of automobiles. Most visitors cover the islands by bicycle, al-

though carriages are available. Bicycles may be rented by the day or week at reasonable figures. The roads from one end of the islands to the other are excellent for cycling. The scenery is not majestic, but it is restful; and the surrounding seas are unforgettable.

#### TRAINING YOUNG CONSUMERS

By F. J. Schlink

THE American Medical Association a few years ago reported that the wholesale prices of twelve common proprietary substances used in medical treatment totaled \$31.65 for twelve ounces, whereas the same substances purchased in the same quantities under their common or technical names could be bought for \$11.26. Roughly, at retail the comparison would be between \$90 for the proprietary articles and \$35 for the articles under their scientific or dictionary names, making the introduction and advertising of the proprietary name alone cost the consumer sixty per cent of the selling price of the proprietary articles, or one hundred and fifty per cent of the selling price of the non-proprietary substances. Again, a simple mixture of sulphur, starch, borax, and baking soda, reckoning at six cents' worth at wholesale, when packed in a fancy box and given a fantastic name, brought \$3.50 in the retail market, as a "remedy" for varicose veins, prostate trouble, and neuritis. It is absurd to assume, as advertising men assert and consumers lacking the details of cost and ingredients readily accept, that the difference of \$3.44 represents a value that the consumer is justified in paying for or indeed could be persuaded to pay for, if he knew what riotous waste was involved. The contents of a six-ounce bottle of a well-known dressing for the hair, selling at fifty cents, can be reproduced for a tenth of a cent. In olden times it would have sold for about five cents at the drug store, and the purchaser would have brought his own bottle, saving even that small cost now regularly wasted by everyone who buys at the grocer's or the druggist's, and who throws away good and usable containers by dozens monthly. But the tradesman prefers the newer

Condensed from "The Consumer . . . Shall He Have Rights in the Schools?" Progressive Education, May, 1932

arrangement, since he makes profits as easily on containers as on the contents.

Similar data on several hundred nationally known tradebrand articles of a score of kinds are available through the studies and tests made by Consumers' Research. One such study shows that a high-grade toilet soap may cost all the way from twenty-six cents to \$1.56 per pound, without the existence of any substantial difference between the cheapest and the most costly except the expenses of the package and of the radio, billboard, and magazine advertising. A single well-studied example of this type will quickly transform a student's lackadaisical interest in the unreal theory of price which he will have presented to him in secondary school economics. Moreover, the out-of-date economic ideas given to high school and college students by many textbooks will seem like so much useless timber compared with the practical and revealing problem set by the price of Squibb's Milk of Magnesia, trade marked bicarbonate of soda-medicinal (ordinary cooking soda, at a very much higher price), Vapex, Mentholatum, Pebeco, Listerine, Three-In-One Oil, Carbona, and a hundred other nationally known but ordinary commodities distinguished by their advertising claims but not by substantial uniqueness of their qualities or superior utility. Again, recent studies show that the cost of daily use of shaving soap per year may run from five cents to \$4.15, according to the type and brand selected, and that the product at the lower price levels gave exactly the same comfort and convenience in every way as the more costly kinds, and performed its simple function rather better than some of the most expensive ones.

Many hesitate to enter upon studies of this type, fearing that they may not have the necessary technical knowledge to execute the investigation effectively and to answer questions that will surely arise. These questions will solve themselves. In most fields of consumers' goods, very few persons, including the manufacturers, know any more than any intelligent investigator of the subject will learn about a particular product in a day or two of research in the library and through simple laboratory tests of the product itself.

For example, tests have been made of a number of types of electric toasters used in the household. A well-equipped engineering laboratory will determine many important points about such toasters which require the use of instruments and ingenious and convenient measuring apparatus. Such points are the probable safety from electric shock hazard to the user, the amount of current consumed, the life-expectancy of the wire used for furnishing the hot surface which radiates the heat to the toast, etc. On the other hand, anyone with mechanical sense can make useful tests comparing the different makes and capable of showing whether or not the bread is toasted evenly, whether the handles and latches of the device become too hot to handle comfortably, and how the devices compare in speed of toasting. Consumers' Research, in a test\* of ten of these devices, found only one, and that a high-priced one, deserving to be recommended. Six were placed in an intermediate class and three rated as "not recommended." All three of the last class had defects of such character and magnitude that only the simplest inspections and trial in actual use were required to assure one of the wisdom of rejecting them as unsuitable for purchase. For example, one had obvious defects of safety inherent in the use of a type of connecting cord not properly insulated. Another, besides having defects of insulation apparent at a moment's inspection, did not toast evenly, as the top margin of the slice was burnt while the bottom part was still light brown in color. Again, the third had defects in insulation, and the handle of the bread rack became so hot as to involve serious danger of burning the fingers of the user. Because

<sup>\*</sup>Not the test reported in this issue of Consumers' Digest.

of a stiffly operating door, the same appliance had to be held down tightly to the table whenever it was opened to remove the toast. In this one also, part of the surface of the toast was scorched while other parts were still light brown in color.

To add to the above observations, the measurement of power used, determined by a simple and inexpensive electrical instrument available in every high school and college physics laboratory, will give another important criterion for selection—economy of current consumption in relation to uniformity of toasting and time required. This minimum of equipment and a little planning based on practical use of a few different makes of electric appliances would permit the average teacher to show his students how to make for themselves, a rough but good enough differentiation of the inferior and the moderately good devices from the best. Many important household articles do not require any more in the way of preparation or special study than the little which is apparent from this brief description.

Thus, the air-moving capacity of an electric fan can be determined by a simple apparatus which can be built in a few hours out of boards available anywhere. The energy consumption (cost to operate) again, can be determined by the same simple instrument required for the toaster. To shift to an entirely different problem, but one practical and interesting for amateur investigators, the comparative quality and economy of a score of samples of canned goods could be determined by senior high school students under competent direction in two or three class periods.

Test methods have been sufficiently standardized so that comparative ratings of household washing machines, except for the more specialized engineering features and probable need for repairs and the like, can also be determined by students with a minimum of special scientific training. The test for corrosiveness of a common brand of household lubricating oil can be made by anyone who

will polish a small cupped piece of copper with sandpaper or emery cloth and place a drop of oil upon it for a few days in a warm room, the specimen being protected from dust by inverting over it a common drinking glass. An advanced class in high school chemistry can, I judge, qualitatively test the enamel of enamelware kitchen utensils for the presence of poisonous substances, which some of them contain, and for resistance to erosion and dulling of the surface through the action of acids present in common foods.

It is not nearly so important that students be encouraged to learn or remember the specific defects and advantages of particular appliances and commodities as that they be given an appreciation of the fact that as and when an economic need warrants it, anyone with some scientific knowledge and manual skill, can with little trouble make useful discriminations between inferior and superior, wasteful and economical commodities. More important perhaps, they can learn that failure of any large-scale agency operating in behalf of the consumer through municipal, state, and federal government services to carry out such discriminations, involves an exceedingly large economic loss to the whole population. Further, important values of such studies are the light which they throw upon the techniques of the sciences and the engineering arts; upon the pragmatic and self-interested, rather than disinterested, character of the approach of professional experts to any given complex problem involved in protection of public health as against a business or private economic interest; upon the powerful quality of disinterestedly ascertained facts in disposing of sales talk, advertising claims, and general and popular impressions; upon the uselessness of popular beliefs and folk lore in settling matters of importance in whatever field, and the near-revolutionary effects on the business enterprise of the country that would follow if industrial enterprises were required, by effective purchasing demand of an economically and technologically educated and informed public, to produce their wares upon a basis of demonstrable merit, utility and performance rather than as at present, mainly upon half understood generalizations, high-pressure salesmaking enterprise, and the general ignorance of the consumer.

Much of value is to be learned about economic processes from a comparison of goods and of trade ethics of different countries. Why, for instance, are Scotch and English woolens, leather goods, jams and marmalades, almost uniformly of high grade and conscientiously made, while the same goods in America are notorious for the degree to which they have been skimped as to grade of raw materials and quality of workmanship? So far is this true that only at isolated points and on a scale so minute as to be negligible in the total production, are decent wool suitings made in America; sixty per cent of American jams and preserves are of a grade far below the household craft standard, and much contain less than half of the content of pure fruit present in the regular production of the British product. On the other hand, American-made electric lamps are superior, by and large, to those made in any other part of the world, and good quality and low cost are provided in this same mass-produced article. A moderate amount of study and discussion given to these differences will lead inquiring students to an understanding of the methods and results in woolen manufacture of a handicraft economy slowly built up and safeguarded by a tradition of painstaking care and commercial honesty; of the mass production of low-grade preserves unguided by research or scientific standards; and in the case of incandescent lamps, of an intelligently ordered mass production tied closely to the most advanced developments of physical, mechanical, and chemical technologies.

The school can give the pupil a rational basis for the development of his own criteria of taste and beauty so that

he may be less a prey to the shrewd mass pressures and crude emulation stimuli provided by the advertiser. Whether the citizenry shall be rushed from yellow gold to white at a signal from the jewelers' and opticians' associations; whether we shall all lose the accuracy of a watch of reasonable size in order to follow the current fad for a diminutive wrist watch incapable of keeping decent time; or whether we shall hazard our health by eating out of cans and bottles, foods which for safe dietary balance, require to be used fresh and without use of preservatives, excessive sugar and spices, artificial color and other commercial embellishments growing out of factory mass production and undiscriminating merchandising; these are all problems the pupil is better able to settle for himself when he understands the economic and technical questions which underlie a decision-when, indeed, he understands that practically all decisions rightly made, even, to take an extreme case, the choice of a proper pencil, charcoal, oil or water paint, paper or canvas for artists' use, are fundamentally technologic ones, even though the need for the examination of one's daily judgments from that direction may not be apparent to the unskilled or uninformed. The classic example of the Rossetti murals (and thousands of other pieces of the finest artistic productions in other forms) lost because of their having been painted on a wall improperly prepared to receive the color, is suggestive of the universality of engineering and scientific problems in the arts.

The average student can be taught to resist the temptation to buy novelties or types of goods and appliances but dimly understood, until after he has sought the best technical advice available to him. That advice may be an article in an encyclopedia or a reference book or the counsel of a teacher in the natural or social sciences or the arts. All intelligent teachers have given much thought to the school's relation to the pupil's future income possibilities. It is growing much clearer than before that the future citizen can

do more to protect himself at the point of outgo or expenditure than he can by striving ever to increase his income. To increase income becomes, in many cases, a boot-strap-lifting procedure in that a young person who happens to have a knowledge or skill which is not salable at a satisfactory price may easily drift into useless but profitable, anti-social, or near-racketeering activities in order to achieve, by hook or by crook, the income level which is customary or aspired to by his nearest acquaintances and the most admired motion picture stars, public figures, or political leaders of his region.

#### Alexis Carrel on Advertising

Our life is influenced in a large measure by commercial advertising. Such publicity is undertaken only in the interest of the advertisers and not of the consumers. For example, the public has been made to believe that white bread is better than brown. Then, flour has been bolted more and more thoroughly and thus deprived of its most useful components. Such treatment permits its preservation for longer periods and facilitates the making of bread. The millers and the bakers earn more money. The consumers eat an inferior product, believing it to be a superior one. And in the countries where bread is the principal food, the population degenerates. Enormous amounts of money are spent for publicity. As a result, large quantities of alimentary and pharmaceutical products, at the least useless, and often harmful, have become a necessity for civilized men. In this manner the greediness of individuals, sufficiently shrewd to create a popular demand for the goods that they have for sale, plays a leading part in the modern world.

> -Alexis Carrel in Man, The Unknown, Harper & Brothers, Publishers.

### CONSUMER TESTS FOR SULFUR AND ITS COMPOUNDS

By
GEORGE W. FIERO, Ph.D., University of Buffalo

THE state and federal agencies for protection of the consumer from adulterated and poisoned foods are by no means satisfactory. Their failure better to safeguard consumers is due, in many cases, to lack of appropriation for a sufficient force of chemists and inspectors, to the peculiar wording of the particular laws, and to the influence of business interests in government. Often the fault is largely that of consumers who are indifferent to the need of such protection because they are unaware of the hazards which beset them in connection with the foods and drugs which are sold them through a complex manufacturing and distributing system. For example, treatment of foods with deadly prussic acid (which is used to fumigate orchards, etc.) was permitted. Prussic acid (hydrocyanic acid) is one of the deadly poisons. Treatment of a cake powder with this acid, which under certain circumstances might combine with the sodium bicarbonate of the baking powder, will leave the poisonous sodium cyanide in the cake. On the label it was stated that the product had been treated with HCN (which is in common use to destroy insects and insect eggs). What does this mean to the consumer? Is he willing to leave such vitally important matters to the uncontrolled and uncoordinated decisions of food processors and manufacturers?

The consumer must learn to protect himself. This is possible only through education, through which he must learn not only what is wrong but how serious the problems are and what are the means of control that might be exercised by government and industry and by the consumer himself. The object of this department of the *Digest* is to include simple tests by means of which a high school student or

anyone interested in chemistry could readily determine the presence of poisons in foods, the relative economy of various consumer articles, etc. It is not to be expected that the consumer is to become a chemist, but that he may, through this type of education in high schools, bring it about that manufacturers and producers will find it unwise to use poisonous preservatives, and very bad for business to be careless about permitting contaminations of their foodstuffs with lead, arsenic, fluorine, and other harmful substances; in short, to bring it about that manufacturers and distributors will develop a habit of fully regarding the safety of the consumer. The simple tests which appear each month are such that they can readily be carried out by high school students, so that they may see for themselves which brands of foods are, for example, artificially preserved and which are not. The tests are equally usable by the consumer at home, provided he has had (in lieu of the supervision of a teacher of chemistry or physics) a reasonable amount of laboratory experience so that he will understand the precautions that must be taken in the handling of poisonous or highly inflammable reagents and in their disposition after the tests are finished.

#### Sulfur

Sulfur is a most interesting element. Chemically, it combines with both oxygen and hydrogen. Physically, it may exist in more than one form. Technically, it has a multitude of applications, not the least of which is in vulcanization of rubber. Medicinally, it has been used in all forms—free sulfur, sulfides, sulfites, sulfates, and thiosulfates, as well as in organic combinations. Sulfuric acid is widely employed in the manufacture of other chemicals. Sodium sulfite and thiosulfite are used as reducing agents in photography.

Sulfur Dioxide. Sulfur dioxide (SO<sub>2</sub>), produced by the burning of sulfur (S+O<sub>2</sub>→SO<sub>2</sub>), is an excellent bleaching agent. The bleaching action is thought to be due to nascent hydrogen liberated (differing from many other bleaching agents, in which nascent oxygen is the whitener). Sulfurous

acid  $(H_2SO_3)$ , produced when sulfur dioxide dissolves in water  $(SO_2+H_2O\rightarrow H_2SO_3)$ , is readily oxidized to produce sulfuric acid, hydrogen being evolved during the reaction  $(H_2SO_3+H_2O\rightarrow H_2SO_4+H_2)$ . It is therefore essential that material to be bleached with sulfur dioxide be dampened before exposure to the fumes. Thus it happens that, if the air is damp, a small leak of gas from an electric refrigerator containing sulfur dioxide as a refrigerant may produce serious bleaching of colored clothing, draperies, etc., that happen to be in the house. Sulfur dioxide is also used as a disinfectant.

Because of its bleaching and antiseptic action, the gas is widely used to treat dried fruits, walnuts, etc. The bleaching action of sulfur dioxide enables the producer to use damaged or discolored fruits. Furthermore, the light, bright color produced by the sulfur dioxide on dried fruit is supposed to make it more salable, and doubtless does have this effect for consumers who do not know the price they are paying, in the form of an added poisonous substance, for attractiveness in dried peaches, apples, or apricots. The antiseptic action of sulfur dioxide prevents deterioration or formation of molds. Fresh fruits contain over 80 per cent of moisture. If they were not dried, decay would soon take place. In order to prevent decay, it is necessary to reduce the moisture content to about 20 per cent. However, if sulfur dioxide is used, the moisture content may be as high as 40 per cent without decay. The treated fruits are, therefore, more plump and less shriveled than the untreated fruits. Also, they are lighter colored due to bleaching. On the other hand, the consumer is paying, at the price of the fruit, for the excess water, and the total amount of money paid by the users of sulfur dioxide in this way for water shipped great distances and sold as dried fruit surely runs to several millions of dollars annually.

Meat which is beginning to putrify may be "renovated" by treatment with sodium sulfite (Na<sub>2</sub>SO<sub>3</sub>) which is closely

related to sulfur dioxide. This results in the removal of the disagreeable odor and restoration of the fresh, red appearance. Internally, the sodium sulfite may react with acid of the stomach to produce sulfurous acid, and the result is similar to eating sulfur dioxide treated fruits.

Poisonous Nature of Sulfur Dioxide. Fruits and meats treated with sulfur dioxide look much more appetizing. However, looks are deceiving, as sulfur dioxide, sulfites, and sulfurous acid are definite poisons. To be sure, they are not as toxic as strychnine or arsenic. On the other hand, because they are less toxic, they are more apt to be overlooked and hence become more dangerous. At one time the United States Department of Agriculture limited the amount of sulfur dioxide in fruits to 350 parts per million. Today, however, we find fruits on the market containing five times that much. The consumer is all too prone to believe that poisoning a little at a time is nothing he needs worry about; that people either are poisoned or they are not-which is not at all the case. There is much slow poisoning which results only in one's not feeling very well, getting tired easily, having "weak digestion," or just dying a few years earlier than otherwise

Sulfur dioxide, is a local irritant and when received into the body in considerable doses causes definite decomposition of the blood, resulting in coagulation and formation of haematin with a brown coloration. It also causes paralysis of the nervous system. These symptoms are similar for sulfurous acid and sulfites. Pharmacological experiments proved that dogs fed meat containing 0.2 per cent of sodium sulfite over a period of time developed blood decomposition. This amount is less than the amount of sulfur dioxide often found in dried fruits. Pharmacologists agree that continual use of foods with sulfur dioxide or sulfites is dangerous. Sulfur dioxide has even been used in an attempted murder; likewise, sodium sulfite was taken for suicide.

Tests for Sulfur Dioxide. To test quantitatively (i.e., de-

termine the amount present) for sulfur dioxide requires an experienced chemist. On the other hand, to test qualitatively (i.e., merely to determine whether the substance is present or absent) for sulfur dioxide is relatively easy and can be done by a high school student with very little chemical apparatus or reagents.

The reagents needed are hydrochloric acid, lead acetate (very poisonous!), and zinc. The first two can be purchased from a prescription pharmacist, possibly under the names "muriatic acid" and "sugar of lead" respectively. The latter may be obtained from a hardware merchant. Hydrochloric acid is a caustic poison; care should be taken that it does not touch the clothes or hands. Lead acetate is a systemic poison; it should be kept out of reach of children and handled very carefully.

If one wishes to test fruit or meat, it should be finely chopped or ground in a mortar with sufficient water to make a paste. If the substance to be tested is a liquid (beer, etc.), it can be used without other preparation. Place about 25 grams (or one ounce) of the material in a 200 cc Erlenmeyer flask or bottle having a capacity of six to eight ounces, adding a little water, if necessary, to make a thin liquid. Then add 5 cc (about one and one-half teaspoonfuls) of hydrochloric acid and about 3 grams of zinc. Cover the flask or bottle with a small piece of filter paper (white newspaper or blotting paper will do) previously dipped into a solution containing about 10 per cent of lead acetate (Pb(C2H3O2)2) (one teaspoonful dissolved in one-quarter cup of water will be satisfactory). The paper may be held in place by setting a perforated stopper (larger than the mouth of the flask) on it.

If sulfur dioxide or sulfites are present, the sulfur dioxide is reduced to hydrogen sulfide and, within 30 minutes, the color of the lead acetate paper becomes dark.

$$Zn + 2 HCl \rightarrow ZnCl_2 + H_2$$
  $3H_2 + SO_2 \rightarrow H_2S + 2 H_2O$   
 $H_2S + Pb(C_2H_3O_2)_2 \rightarrow PbS \text{ (black)} + 2 HC_2H_3O_2$ 

If lead acetate is not available, place a shiny silver coin over the mouth of the flask. If it is stained black, sulfur dioxide was present.

$$2 H_2S+4 Ag+O_2 (air) \rightarrow 2 Ag_2S+2 H_2O$$

In order to avoid the risk of error being introduced into his determinations by the presence in his reagents or in the air or dust of the laboratory of the very substances being sought for in the sample under test, the chemist often runs a parallel test on a sample known not to contain the substance being looked for. This is called a *control* or *blank* determination. In the above experiment, the control could be carried out on a piece of meat absolutely known to be fresh and untreated, or, in the case of the liquid, on a sample of fresh fruit juice or the syrup from some canned fruit, such as peaches or pears.

Sulfides. Sulfides find use in that type of cosmetics known as depilatories (hair removers). Sulfides of various metals are employed—barium, strontium, sodium, calcium, etc. All are poisonous and have been banned from use by some local or state authorities. A writer on cosmetics¹ urges that when used the product should be labeled "POISON!"

Detection. The presence of sulfides may be detected by a very simple test. Place a small quantity of the paste in a test tube and add a small amount of diluted hydrochloric acid (HCl) (one part acid with two parts of distilled water). If sulfides are present, hydrogen sulfide ( $H_2S$ ) gas is evolved. This may be detected by its rotten-egg-like odor or by placing a piece of lead acetate ( $Pb(C_2H_3O_2)_2$ ) paper (filter paper moistened in lead acetate solution) over the tube. If the paper becomes blackened, sulfides are present.

BaS + 2 HCl
$$\rightarrow$$
BaCl<sub>2</sub> + H<sub>2</sub>S $\uparrow$   
H<sub>2</sub>S + Pb(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub> $\rightarrow$ PbS $\downarrow$  + 2 HC<sub>2</sub>H<sub>3</sub>O<sub>2</sub>

<sup>&</sup>lt;sup>1</sup> H. Goodman, American Perfumer, February, 1937.

1937 CONS

A rotten-egg-like odor will likely be noticeable in a sulfide depilatory without involving the necessity of treatment with hydrochloric acid and will serve as a rough test of the presence of sulfides. The odor will be intensified if the sample of depilatory is placed in a teacup (non-metallic) containing boiling hot water. A simpler but less reliable test is to rub some of the paste on a shiny silver coin; if it darkens, sulfides are present.

The sulfides of some metals (e.g., barium sulfide) are more poisonous than others. It is easy to distinguish the particular metal present by means of the flame test. Use a bunsen burner, adjusted so that the flame is colored blue. Dip a clean platinum wire into hydrochloric acid (HCl) and hold in the flame. The wire should be attached to a glass rod and have a loop in the other end to hold the material to be tested. If color is produced in the flame, repeat dipping into hydrochloric acid and returning again to the flame until the color does not appear. Dip the loop into the paste and hold this in the flame. Then dip it into the acid and return again to the flame. The color of the flame indicates the metal present: barium, yellowish green; strontium, bright red; calcium, orange-red; sodium, orange-yellow. (Sodium may be present in other ingredients of the paste and render other colors difficult to see.)

Chemical Test for Barium. Since barium sulfide (BaS) is more poisonous than the other sulfides mentioned, one may wish to confirm its presence by a simple chemical test. Dissolve a small amount of the paste in dilute hydrochloric acid. Filter, using a glass funnel and filter paper. To the liquid passing through the filter (i.e., the filtrate) add a small amount of dilute sulfuric acid (10 per cent) (H<sub>2</sub>SO<sub>4</sub>) or ammonium sulfate solution ((NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>). A white precipitate, insoluble in acids, indicates barium.

BaS + 2 HCl $\rightarrow$ BaCl<sub>2</sub> + H<sub>2</sub>S $\uparrow$ BaCl<sub>2</sub> + H<sub>2</sub>SO<sub>4</sub> $\rightarrow$ BaSO<sub>4</sub> $\downarrow$  + 2 HCl

## "The Consumer will NOW decide"...



THE New York State Court of Appeals on March 9th, reversed its previous decision and sustained the Feld-Crawford Price-Fixing Act as the law of the State.



How does this law affect thousands of New York family budgets?

This law opens the door to price-fixing by manufacturers—and price-fixing means price-raising.

We believe that most manufacturers in most trades will conclude that everybody is better off without price-fixing, and will not use this new law to force higher prices on the public.

However, some will. We then want' our customers to know about it. So we shall give them a clear choice 1. You will find price-fixed merchandise in Macy's identified in this way:



 You will find price-FREE merchandise under Macy's own quality brand bearing this label:



3. As always we will welcome in our stocks the many reliable items, branded and unbranded, which their makers prefer to sell without price restriction. Macy's customers are used to the widest possible assortment of such goods.

We believe that the lower price on our own brands, and on other price-EREE merchandise, alongside high-pricefixed brands, will tell its own eloquent story to the buying public-a story every family budget in New York will understand.

Macy's, as you know, already has thousands of such articles, bearing "Macy's Own trademarks and labels.

Each such article is backed by Macy's reputation. And behind that is the constant, scientific supervision of Macy's Bureau of Standards—the oldest, largest, and busiest store quality-laboratory in

You often hear stores called "buying gent for the Consumer." They are.
Weare. We like the job. We look forward to this new opportunity to show how well we can buy for you. We've talked with retailers from all over the country-little stores, medium suced stores, big stores. We know a loot of retailers in America who will likewise seize this chance to show their ability to save money for the Consumer month in, month or this.

Our job is, as always, to see to it that New Yorkers shall not be FORGED to buy goods at fixed high prices.

We're that kind of a store.

### MACY'S

#### THEY'RE CARRYING THAT RUBBER STAMP BUSINESS TOO DOG GONE FAR



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#### GULLIBLE'S TRAVELS

April 24, 1937

Snocum, Coconut Grove, Pacificania. Dear Snocum:

Credit to whom credit belongs! Two
Italians, more than all other human beings, are
to be credited with this remarkable land-America. The first one, Columbus, found the
country; and the second, Marconi, founded its
culture. For his native land and his radio
set every American is indebted to these two
Italians.

It is hardly an exaggeration to say that an American home is a structure built around a radio set. No other room in the house is so popular with Americans as the one in which the radio set is located. Children jump up from the table in the dining room and run to listen when screaming sirens from the radio announce the beginning of "The Adventures of Toughy the Gangster." The man of the house sits patiently by his radio until almost midnight waiting for his favorite little cooing songbird, when otherwise he would have repaired to his bedroom at least two hours earlier. The housewife deserts the kitchen during the morning to listen to the stirring "Romance of Belle Blossom."

I must not let you believe that everything which goes out over the air is on a consistently high cultural plane. It is inevitable that with so many thousands of programs there should be one now and then that does not merit the listener's attention. But the beauty of the radio lies in the fact that a simple turn of the dial silences the occasional program which is not up to standard. Just the other night,

# **GULLIBLE'S**TRAVELS



"... and when he begins to tell about his remarkable headache tablets I long to have a headache just to have an excuse for buying his remedy...."

I chanced to tune in on a speaker who was maligning America as a land of dire poverty where one-third of the people are ill-clad, ill-nourished, and ill-housed. Exercising the prerogatives of the democracy of the dial, I promptly shut him off and tuned in on a thrilling boxing bout which afforded me great relaxation of mind. I happen to know that America is not a land of such desperate plight, for I listened to many radio broadcasts during the recent political campaign in which the winning candidate described in detail how prosperity has returned to America. And always these broadcasts were introduced with the strains of "Happy Days Are Here Again."

Many radio broadcasts have to do with political questions, and I must confess that much of such discussion is beyond me. Impervious has tried to explain American politics to me, but I greatly mistrust his judgment. He says. for example, that I should not take too seriously the glowing accounts of American prosperity on the one hand or the laments about American poverty on the other hand, but that I should always inquire what it is the speaker wants to put over and then, after ascertaining his political purposes, apply the proper discount to his assertions. But, as for me, I refuse to believe that American politics could be conducted upon such a basis. Impervious says my whole difficulty with politics is that I do not recognize woosoppy when I hear it.

Even though I am at a loss to fathom politics, I enjoy the radio commentators who keep all America abreast of the march of world events. Among the commentators, my favorite is Heywatta Balloon. He grips me with his wholesome homespun philosophy delivered in a drawl that betokens sweetness of soul. I met Mr. Balloon one day, and I must say that he is a man of parts. Impervious roared when I told him this, and said "auto parts." This was one of Impervious' ungenerous thrusts aimed

at the fact that Mr. Balloon appears on the air as an advertisement for auto parts.

While I am thrilled by ninety-nine out of a hundred radio programs, I must say that the radio announcers themselves attract me almost as much as their programs and the products which support them. A radio announcer is the most sincere person in the world. I am often ashamed of myself for lacking enthusiasm about so many things in life, when I hear a radio announcer put the very soul of sincerity and enthusiasm into his descriptions of the wonder-working powers of a cake of soap, or a gentle laxative, or a headache tablet, or a can of soup. The amazing thing is that one radio announcer can be equally sincere and enthusiastic about ten or twelve different products in a single day. Anyway, the announcer fairly drips with sincerity. Always up to his old tricks, Impervious says the announcers are probably given some kind of sincerity serum.

When a radio announcer, with his voice literally dripping with sincerity, begins to dilate upon some marvelous product, the itch to buy it seizes me, and I could no more think of holding on to my money under the circumstances than I would consider stealing a dime from a blind beggar. The announcer makes me feel that my money is no longer mine. One of my favorite radio announcers is Oso Sincere, and when he begins to tell about his remarkable headache tablets. I long to have a headache just to have an excuse for buying his remedy. Similarly, when Bearly Plausibull, another announcer, talks about his bath crystals. I feel like rolling in the dirt just to have a good reason for taking a bath.

Of course, the advertising men -- the supermen of America about whom I have already written you -- work hand in hand with the radio. It was long ago recognized that the modern newspaper -- fifty large printed pages selling

for two cents -- is the gift of advertising men to modern civilization. Now it must be said also that the wide diffusion of culture over the radio is the second great gift of advertising men to civilization. Many an American would have lived out his days in unromantic boredom but for the crooner whom radio brings right into his home and heart. Many a plainsman of the great rural stretches of this country would have found the drabness of his own life hard to endure but for Walter Tellitall who takes him into his confidence about all the last-minute (Impervious would say last-split-second) romances of the Hollywood film stars. How many Americans would never have guessed where the music comes out or the course which it pursues towards its exit if the radio had not provided them with musical education! In a former generation, the boys of this country, who now uniformly aspire to become G-men, knew nothing of gangsters and were content with far duller ambitions, to be farmers or street car conductors.

From these few words, dear Snocum, I hope you will understand what magnificent things the radio has done for Americans. Truly, that fellow Marconi started something! I would write you at greater length on the almost limitless blessings of the radio to America, but I must now take an easy chair by the fireside and have a visit with no less a personage than America's own Chief Executive.

Yours for civilization in Coconut Grove,

Sullible

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#### January, 1937

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Turkish Bath Towels
Cold Creams
Poisons in Common Foods
Lighting Fixtures
Flashlights

Honey Encyclopedias

February, 1937

How to Get Fresh Coffee Washing Machines Fire Safety in the Home Seeds for the Home Garden Canned Dog Food Electric Heating Pads Enamels and Varnish

The Food Budget

#### March, 1937

Good Native Plants
Carpet Sweepers
Knitting Yarns
Food Fallacies and Quackery
Men's Suits and Suit Fabrics
Neckties
Clinical Thermometers
How to Test Can Openers

#### April, 1937

Toothbrushes
Toilet Soaps
Vacuum Cleaners
Mattresses
Fertilizers and Soil Amendments
Household Rubber Gloves
Razor-Blade Sharpeners
Card Tables

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JUNE, 1937 Vol. I . . . No. 6

#### CONSUMERS' DIGEST

Published monthly at 80 Lafayette St., New York, N. Y.

by

#### CONSUMERS' RESEARCH, INC.

Editorial Office: Washington, N. J.

25c a copy

\*

\$3 a year

The American News Company, distributors

F. J. SCHLINK Editor-in-Chief

J. B. MATTHEWS Managing Editor M. C. PHILLIPS
Associate Editor

Technical Editors: R. Joyce and E. W. CHENEY

Address all communications to

Consumers' Digest, 80 Lafayette Street, New York, N. Y. or to the editorial office, Washington, N. J.

Entered as second-class matter November 25, 1936, at the Post Office at New York, New York, under the Act of March 3, 1879. Entire contents copyright 1937 by Consumers' Research, Inc.

The material in this magazine is mainly based upon data in the files and from the Bulletins of Consumers' Research, Inc.

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#### CONSUMERS' DIGEST

The enlightened consumer is a necessary encouragement to merchandising integrity.

#### CONSUMERS AS VOTERS

The public controls the destiny of private business enterprise more perfectly than it can ever hope to control socialized business. Daily elections are held in the market places, Consumers are the voters. Mrs. Jones tells her husband that she will no longer put up with the insolence and shiftlessness of the janitor of their apartment. She has decided to move. Mrs. Brown tells her husband that John, the green-goods man, is now handling inferior vegetables and that she has about decided to take her trade to a competitor. On his way to the office, Mr. Brown buys a razor of a different make from any he has used. Thus one manufacturer loses a customer; a rival gains a customer.

Under capitalism, the consumer enjoys perfect freedom of choice. If he likes pink toothpaste, he can get it. The proprietor of every private business is exerting all his energy and ingenuity to please his customers. When he fails, it means that he isn't wanted or needed.

Under socialism the issues would be so scrambled and involved that the consumer would be helpless. He might be disgusted with the goods and the service at the government tobacco shop, but he would be unable to correct the situation. He would have to wait for an election to register his disapproval, but unless the majority agreed with him there would be no change.



LL signs point to a great demand for trailers during the next few years. Consequently, there is no doubt that the manufacturing practices will swing from small-scale to mass production. The state of trailer manufacture today is approximately that of automobile manufacture around 1912. There is a difference, however, in that the mass production motor car factories with their huge stamping machines, etc., have already been developed and the knowledge gained in the manufacture of automobiles will allow the advances in the production of better trailers to be made very much more rapidly than has been the case with automobiles. There is no doubt that the number of companies now producing trailers will be greatly reduced as time goes on, since most of the firms now in the business are not equipped to build a trailer of the quality that will be demanded by the careful consumer as his knowledge of the subject and understanding of the requirements of a good trailer are developed by observation and experience. The public will buy the product that is well made and sufficiently safe, which will be constructed by the larger, wellequipped company, rather than pay the same price for a poorly-constructed one built by the small company of ordinary initiative and ability. An occasional small company, however—as in the case of automobiles—producing a superior product, will be deserving of a discriminating clientele, although its prices will be somewhat higher than those of big mass-production firms.

Before deciding to purchase a trailer on the basis of the customary extravagant advertising claims, it will pay to consider if the relatively large investment will be worth while. The average family with three weeks' or a month's vacation a year will find a trailer a very expensive luxury unless it can be rented out when not being used. It is most important to remember that the majority of trailers cannot be housed in the family garage during the winter, which means that unless one can afford to pay considerable rental for storage space, the trailer must be left out in all kinds of weather, with resulting rapid deterioration and depreciation. For the foot-loose and fancy-free family with plenty of time on its hands, or for those who frequently migrate from job to job, a trailer will be a desirable purchase. In 1936, there were 700,000 registrations of trailers in the United States, and it is estimated that more than a million and a half will be in use during the coming year. At the present time there are said to be over 180,000 families living in trailers in California alone.

The trailer industry of today is changing its models so rapidly that there is a tendency sometimes to sell off old stock under a false pretense of their being "demonstrators" of the latest model. Of course, these models are often worth the reduced price asked for them and, in many cases, they will be a desirable purchase. But they should be bought with one's eyes open, for otherwise their purchaser may be disappointed when he parks in his first trailer camp only to find that his neighbor has a later model than his own, bought before he acquired the supposedly new model "demonstrator."

The American Automobile Association furnishes up-todate information on the best places to tour in a trailer. The maps to be furnished the members of this organization during the coming year, we understand, will indicate trailer camps and the facilities of each. Other information available to a trailer owner may also be obtained, and certain branch offices of this organization maintain a rental system whereby trailers may be registered and rented out for certain periods of time. A national guide to trailer parks is also available from Trailer Coach Manufacturers Association, Peoria, Ill.

In presenting the following report on trailers, Consumers' Research wishes to make it clear that the recommendations are given as opinions of engineers qualified to judge the various companies' products which are now on the market. These recommendations are made entirely from an engineering standpoint and not from a viewpoint of outer appearance. It is felt that in such things as beauty and attractive fittings, the consumer can choose for himself, and that, in any event, he will wish to make his own selection with respect to qualities of this kind. Undoubtedly, there will be well-constructed trailers built by reliable companies that are not included in the recommendations owing to their being in small production or preliminary distribution, and to lack of technical information available. On such trailers Consumers' Digest will be pleased to receive reliable and objective critical information from persons qualified by experience or special knowledge to discuss them. As it is impossible to list all makes of trailers, Consumers' Research has, of necessity, confined itself in the recommendations to those trailers which are produced in the largest quantities.

#### Identification and Price Divisions

In listing trailers, f.o.b. prices only have been quoted, preceded by the address of the builder, through whom the prospective buyer may locate the nearest agent and estimate the cost of transportation; in some cases, the agent will allow the customer to transport his own trailer. The weight on the drawbar, which is the amount of weight that will be added to the rear axle of the car by the trailer, is given in each case (see *Chassis Frames* for effect on tire loading). A few other outstanding items included in standard specifications have been added. In each case where beds for four

people are available, the price has been stated to include this accommodation. It should be realized that the amount of equipment of a trailer is quite variable and any de luxe features desired may be added by the manufacturer at an extra charge or may be later installed more reasonably by the buyer.

Due to the continual changes in the industry and in specifications without announcement to consumers, and in view of the fact that the industry is not nearly so well standardized as automobiles—whence there will be certain variations in prices permitted to local agents—the data which follow, including prices given in the recommendations, cannot be assumed to be exact or up to date for any considerable time.

Of thirty-five trailers tested that are comparable in price and that have been built to compete directly with one another, we recommend the twenty-eight which follow, in the price groups noted. Trailers listed under *Qualified Recommendation* are not in order of merit.

Group	1	\$336 t	o \$427
Group	2	461 t	to 530
Group	3	595 t	o 725
Group	4	765 t	o 785
	5		

## Price Group 1-\$336 to \$427

### QUALIFIED RECOMMENDATION

Trotwood Cub (Trotwood Trailers, Inc., 111 Main St., Trotwood, Ohio) \$420 f.o.b. Weight 1,250 pounds; on drawbar, 175 pounds. Over-all length, 13 feet 5 inches. Chassis frame, steel; body frame, wood. Side-wall construction, leatherette or duck over plywood. Two passengers. Water-tank capacity, 15 gallons. Curtains and bumper.

Schult Travelease, De Luxe (Schult Trailers, Inc., 1800 S.

Main St., Elkhart, Ind.) \$427 f.o.b. Weight 1,500 pounds; on drawbar, 200 pounds. Over-all length, 15 feet 6 inches. Chassis frame, steel; body frame, wood. Side-wall construction, leatherette over plywood. Four passengers. Water-tank capacity, 15 gallons. One of the most popular sellers of this line. Only trailer in group with heating stove included, but it is the highest priced.

Schult Caravan (Schult Trailers, Inc.) \$336 f.o.b. Weight 1,200 pounds; on drawbar, 165 pounds. Over-all length, 14 feet. Chassis frame, steel; body frame, wood. Exterior side-wall construction, leatherette over plywood. Four passengers. Water-tank capacity, 15 gallons. This and the Schult Travelease are the only trailers listed as having a 17-inch wheel; all others have the standard 16-inch wheel. The shape differs from that of any other trailer listed as it has a "semi-crescent" top. It is the smallest trailer listed that claims accommodations for four people.

### Price Group 2-\$461 to \$530

#### RECOMMENDED

Hayes Cruiser, No. 230 (Hayes Body Corp., 560 Seventh St., Grand Rapids, Mich.) \$520 f.o.b. Weight 1,600 pounds; on drawbar, 200 pounds. Over-all length, 14 feet 10 inches. Chassis and body frames, steel. Exterior sidewall construction, steel below belt; above belt, leatherette over plywood. Four passengers. Water-tank capacity, 20 gallons. Top insulated. Heating stove, two-burner cook stove, curtains, and bumper. A well-engineered job by an established manufacturer with one of the best equipped factories.

## QUALIFIED RECOMMENDATION

Schult Nomad (Schult Trailers, Inc.) \$461 f.o.b. Weight 1,700 pounds; on drawbar, 200 pounds. Over-all length, 17 feet 6 inches. Chassis frame, steel; body frame, wood. Side-wall construction, leatherette over plywood. Four passengers. Water-tank capacity, 15 gallons. This and the

Travelease model are the two most popular sellers of the Schult line.

Trotwood, Standard (Trotwood Trailers, Inc.) \$530 f.o.b. Weight 1,600 pounds; on drawbar, 190 pounds. Over-all length, 16 feet. Chassis frame, steel; body frame, wood. Side-wall construction, duck or leatherette over plywood. Four passengers. Water-tank capacity, 15 gallons. Curtains and bumper.

Silver Dome Hyway (Silver Dome, Inc., 6300 Woodward Ave., Detroit) \$475 f.o.b. Weight 1,735 pounds; on drawbar, 245 pounds. Over-all length, 16 feet. Chassis frame, steel; body frame, wood. Side-wall construction, Masonite. Four passengers. Water-tank capacity, 18 gallons.

Aladdin Mayflower (Aladdin Co., Bay City, Mich.) \$495 f.o.b. Weight 1,800 pounds; on drawbar, 250 pounds. Over-all length, 18 feet. Chassis frame, steel; body frame, wood. Side-wall construction, pressed, hard board. Four passengers. Water-tank capacity, 18 gallons. The largest trailer in this price group. This is a good, average, woodenframe trailer.

### Price Group 3—\$595 to \$725 RECOMMENDED

Pierce-Arrow Travelodge, Model C (Pierce-Arrow Motor Corp., Trailer Division, Buffalo, N.Y.) \$595 f.o.b. Weight 1,700 pounds; on drawbar, 250 pounds. Over-all length, 13 feet 7 inches. Chassis and body frames, steel. Sidewall construction, aluminum. Two passengers. Watertank capacity, 24 gallons. This trailer is small, but it is one of the best insulated on the market; has special type of wheel suspension. It is well built, and is the only make listed which is equipped with shock absorbers. It reflects the engineering experience of the Pierce-Arrow Co., one of the oldest manufacturers of automobiles (see Body Frames and Insulation).

### QUALIFIED RECOMMENDATION

- Trotwood, Master (Trotwood Trailers, Inc.) \$635 f.o.b. Weight 1,800 pounds; on drawbar, 200 pounds. Over-all length, 18 feet. Chassis and body frames, wood. Sidewall construction, leatherette or duck over plywood. Four passengers. Water-tank capacity, 15 gallons. Curtains and bumper.
- Covered Wagon, Master (Covered Wagon Co., 479 Cass Ave., Mt. Clemens, Mich.) \$665 f.o.b. Weight 1,850 pounds; on drawbar, 250 pounds. Over-all length, 16 feet 6 inches. Chassis frame, steel. Side-wall construction, Shermanite steel processed to plywood. Four passengers. Water-tank capacity, 20 gallons. One of the oldest and largest makers. A good, average trailer.
- Palace Travel Coach, Standard (Palace Travel Coach Corp., Flint, Mich.) \$595 f.o.b. Weight 2,000 pounds; on drawbar, 275 pounds. Over-all length, 16 feet 4 inches. Chassis frame, steel; body frame, wood. Side-wall construction, leatherette over plywood. Four passengers. Water-tank capacity, 20 gallons. Bathtub under rear bed compartment.
- Silver Dome Hyway, De Luxe (Silver Dome, Inc.) \$630 f.o.b. Weight 1,865 pounds; on drawbar, 285 pounds. Over-all length, 16 feet. Chassis frame, steel; body frame, wood. Side-wall construction, Masonite. Four passengers. Water-tank capacity, 18 gallons. Curtains and bumper. Considered one of the best of the wooden body-frame trailers.
- Kabin Koach, Standard (Kabin Koach Co., E. Detroit) \$655 f.o.b. Weight 1,800 pounds; on drawbar, 325 pounds. Over-all length, 16 feet 6 inches. Chassis frame, steel; body frame, wood. Side-wall construction, steel. Four passengers. Water-tank capacity, 6 gallons.
- Auto Cruiser, No. 17 (Auto Cruiser Co., 4401 York Road, Baltimore) \$685 f.o.b. Weight 1,450 pounds; on drawbar, 275 pounds. Over-all length 17 feet. Chassis frame,

steel; body frame, wood. Side-wall construction, Mason-ite. Four passengers. Water-tank capacity, 20 gallons.

Gilkie Skipper (E. P. Gilkison Sons, 1319 Wabash Ave., Terre Haute, Ind.) \$695 f.o.b. Weight, 1,865 pounds; on drawbar, 280 pounds. Over-all length, 17 feet. Chassis frame, steel; body frame, wood. Side-wall construction, Masonite. Four passengers. Water-tank capacity, 25 gallons. Bumpers.

Schult, De Luxe (Schult Trailers, Inc.) \$695 f.o.b. Weight 1,900 pounds; on drawbar, 225 pounds. Over-all length, 19 feet. Chassis frame, steel; body frame, wood. Sidewall construction, leatherette over plywood. Four passengers. Water-tank capacity, 20 gallons. Toilet and lavatory.

Curtains and bumper.

## Price Group 4-\$765 to \$785

#### QUALIFIED RECOMMENDATION

Palace Travel Coach, Master (Palace Travel Coach Co.) \$775 f.o.b. Weight 2,400 pounds. Over-all length 18 feet 4 inches. Chassis frame, steel; body frame, wood. Sidewall construction, leatherette over plywood. Four passengers. Water-tank capacity, 20 gallons. Bath and chemical toilet. Bathtub under bed. Third wheel optional equipment (see Third Wheel).

Vagabond, No. 19 (Vagabond Coach Co., 500 Grand River, New Hudson, Mich.) \$785 f.o.b. Weight 2,100 pounds; on drawbar, 275 pounds. Over-all length, 19 feet 4 inches. Chassis frame, steel; body frame information not available. Side-wall construction, Masonite. Four passengers. Water-tank capacity not available.

# Price Group 5-\$820 to \$910

#### RECOMMENDED

Pierce-Arrow Travelodge, Model B (Pierce-Arrow Motor Corp., Trailer Division) \$845 f.o.b. Weight 2,200 pounds; on drawbar, 265 pounds. Over-all length, 16 feet 6 inches. Chassis and body frames, steel. Side-wall con-

struction, aluminum. Four passengers. Water-tank capacity, 24 gallons. Lavatory and chemical toilet. This is one of the best insulated trailers on the market and is well engineered as it is built by one of the oldest manufacturers of automobiles. It has independently sprung wheels (no axle is used) and is the only make listed with shock absorbers (see *Insulation* and *Body Frames*).

Hayes Crusader, De Luxe (Hayes Body Corp.) \$850 f.o.b. Weight 2,250 pounds; on drawbar, 315 pounds. Over-all length, 17 feet 6 inches. Body and chassis frames, steel. Side-wall construction, steel below belt; above belt, leatherette over plywood. Four passengers. Water-tank capacity, 20 gallons. Curtains and bumpers. Heating stove, grill, and Warner electric brakes standard equipment. This is about the most sturdily built and one of the best-engineered trailers on the market. As previously noted, Hayes Body Corp. is perhaps one of the best-equipped factories building trailers.

Bender, No. 14 (Bender Body Co., Cleveland) \$885 f.o.b. Weights not available. Over-all length, 18 feet 6 inches. Chassis and body frame, steel. Side-wall construction, steel. Four passengers. Water-tank capacity, 20 gallons. This company is one of the established builders of automobile bodies.

## QUALIFIED RECOMMENDATION

Gilkie Champion (E. P. Gilkison Sons) \$820 f.o.b. Weight 2,200 pounds; on drawbar, 280 pounds. Over-all length, 17 feet. Chassis frame, steel; body frame, wood. Sidewall construction, *Masonite*. Four passengers. Water-tank capacity, 25 gallons.

Federal, Standard (Federal Motor Truck Co., Detroit) \$844 f.o.b. Weight 2,175 pounds; on drawbar, 325 pounds. Over-all length, 18 feet. Chassis frame, steel; body frame, wood. Side-wall construction, steel. Four passengers. Water-tank capacity, 25 gallons. This trailer is very well insulated (see *Insulation*).

Trotwood, De Luxe (Trotwood Trailers, Inc.) \$910 f.o.b. Weight 2,000 pounds; on drawbar, 225 pounds. Over-all length, 20 feet. Chassis frame, steel; body frame, wood. Side-wall construction, leatherette or duck over plywood. Four passengers. Water-tank capacity, 15 gallons. Built-in trunk. Toilet. Curtains and bumper. Brakes standard equipment.

Silver Dome Suburban (Silver Dome, Inc.) \$895 f.o.b. Weight 2,485 pounds; on drawbar, 385 pounds. Over-all length, 18 feet 2 inches. Chassis frame, steel; body frame, wood. Side-wall construction, steel cemented to plywood. Four passengers. Water-tank capacity, 20 gallons.

Covered Wagon, De Luxe (Covered Wagon Co.) \$895 f.o.b. Weight 2,150 pounds; on drawbar, 300 pounds. Over-all length, 19 feet. Chassis frame, steel. Side-wall construction, Shermanite steel processed to plywood. Four passengers. Water-tank capacity, 20 gallons.

Kabin Koach, De Luxe (Kabin Koach Co.) \$862 f.o.b. Weight 2,400 pounds; on drawbar, 350 pounds. Over-all length, 17 feet 6 inches. Chassis frame, steel; body frame, wood. Side-wall construction, steel. Four passengers. Water-tank capacity, 18 gallons.

#### Chassis Frames

The steel frame is far superior to the old wooden frame and it is light; it is usually built of angle irons so that the floor need only be about one to two inches above the bottom of the frame, thus allowing a lower center of gravity. The hitch arms are welded to, and are an integral part of, the chassis. If your automobile has a trunk, be sure that the hitch is sufficiently long to allow the trunk lid to be fully opened.

With an up-to-date car where the rear extends out behind the axle considerably more than with the old cars, it is often possible to have the hitch sufficiently long so that the trailer will track the car, that is if a turn is made, the trailer wheels will follow the same path as the rear wheels of the car. It is very convenient when driving to have the trailer track the car, as most drivers have learned how far to pass beyond an object before making a turn so as not to strike it with the rear wheel. The disadvantage of mounting the trailer-hitch back of the rear axle is that it greatly increases the weight on the rear tires of the car. If the weight on the drawbar, which is usually around 300 pounds, were placed over the rear axle, the rear wheels would be loaded an extra 300 pounds, but if the 300 pounds is placed back of the rear axle the additional load on the rear tires will be in the range of about 400 to 500 pounds depending upon the distance.

A very important item which is rather difficult to determine is the method of construction of the wheel house. The construction should be such that water thrown off the wheel cannot leak into the body and frame. This is most important if the body frame is wood. The following trailer manufacturers build water-tight, sheet-iron wheel houses welded to the steel chassis frames: Bender Body Co., Hayes Body Corp., Pierce-Arrow Motor Corp., Silver Dome, Inc., and Vagabond Coach Co.

#### Brakes

There are very few existing laws on "house trailers," but bills are being introduced in many states this year and it will be only a short time until there will be many laws controlling trailers and their use. Some states have already enacted laws requiring brakes on trailers; it is evident that for safe operation, brakes should be included on house trailers. Brakes will increase the speed at which the car and trailer can be safely driven under all conditions; they are especially important if the roads are slippery. An engineer of much experience with trailers under adverse driving conditions recommends that the brakes be controlled separately from the car's brakes, so that they may be applied alone, along with, or before the brakes on the car.

The two most widely used systems of brakes on house trailers are the Bendix power brakes (vacuum system) and the Warner electric brakes. The Bendix vacuum system for cars equipped with hydraulic brakes consists of a vacuum valve mounted in such fashion that it is controlled by the master cylinder, through a copper tube. If the car brakes are mechanical, the vacuum valve is connected to the brake pedal by a linkage. If operated by hand, the control lever is mounted on the steering column just under the steering wheel. This control lever operates the valve, which is usually mounted on the dash near the intake manifold, by means of a flexible cable in a conduit. A tube, through which the intake manifold suction acts, runs back to one double-acting or two single-acting power cylinders. These cylinders are mounted under the floor of the trailer and actuate the brakes by cables in conduits. The power cylinder may also be used to actuate a piston which operates hydraulic brakes on the trailer if its brake equipment is of that type.

The Warner electric brake is much more simple to install, disconnect, and reconnect when the trailer is separated from the car. A controller is mounted so as to be connected to the brake pedal (or on the steering column, for hand operation). A wire then carries the battery current to an electro-magnet in each brake drum. The armature when attracted by the electro-magnet tends to rotate with the wheel, thus applying the brakes in proportion to the pull of the electro-magnet. The pull of the electro-magnet is governed by the controller. Although Bendix power (vacuum) brakes are more widely used on commercial trailers, the extra complication is not believed necessary for a house trailer. The more simple electric brakes appear, on present information, to be preferable for house trailer use.

#### RECOMMENDED

Warner Electric Brake (Warner Electric Brake Mfg. Co., Beloit, Wis.) \$60 completely installed, includes the con-

trol and its installation on towing vehicles. A very efficient, simple brake, requiring only a small amount of current to operate.

#### QUALIFIED RECOMMENDATION

Bendix Power Brakes (Bendix Products Corp., South Bend, Ind.) \$45 installed on trailer. Control on towing vehicle, \$12.50 to \$16.50 extra, plus an installation charge.

#### Third Wheel

Two of the trailers exhibited at the New York Automobile Show had a third wheel at the center of the forward end which rolls on the road and carries the vertical drawbar load. The car, of course, is thus relieved of the drawbar load and the driving wheels of the car do not provide the additional traction that would be afforded by that increment of load on the rear wheels. However, when the road is slippery, it is very desirable to have additional traction in order to be able to tow the trailer. The stability of the trailer is reduced by the third wheel; that is, it will require a smaller force to turn it over. Another disadvantage of the three-wheel type of trailer is that it is much more difficult to back than the conventional two-wheel type.

(In the State of Kentucky it is unlawful to use a trailer, but it is to be noted that the usual two-wheel type house trailer is not included in this prohibition, being considered a semi-trailer.)

### Parking Jack

Practically all of the trailers have parking jacks with wheels. The jacks are, in most cases, to be removed when the trailer is under way. This is a very inconvenient arrangement as the jack is often greasy and dirty and there is no convenient place to put it. A jack should be supplied which is just folded and clamped into place when not in use.

#### Tires

A very important factor in the operation and maintenance of a trailer is the tires. The consumer should watch this closely as the desire to increase sales by lowering the initial cost will probably tempt the manufacturer to economize on the tire size. If the weight of the trailer is one-half the weight of the automobile, it would, in most cases, be wise to be on the safe side and have the trailer equipped with the same size tires as the automobile. Then one spare tire would suffice for both vehicles. The Association of Tire and Rim Manufacturers compiles a list of tire sizes and weights showing the maximum loads recommended for different sizes and number of plies of tires. These data are used by engineers to determine the size and number of plies of tires with which different weight vehicles should be equipped. For the consumer's information, Consumers' Digest is quoting the following data for a list of sizes of tires with which the trailers of today are equipped, showing the maximum loads recommended for these sizes and number of plies of tires at recommended air pressures:

	No. of	Pounds	Max. Load Per Tire
Size of Tire	Plies	Pressure	Pounds
5.50-16	4	30	810
5.50—16	6	36	900
6.00—16	4	28	915
6.00—16	6	36	1065
6.25—16	4	28	985
6.25—16	6	36	1140
6.50—16	4	28	1050
6.50—16	6	36	1215
7.00-16	4	26	1145
7.00-16	6	36	1395
7.50—16	4	24	1235
7.50—16	6	36	1560

It is important that a buyer actually weigh the trailer and check the tire sizes before buying, as weights stated in the manufacturers' literature vary from the weight without furnishings to the weight fully equipped, and are not regarded as reliable figures.

From data given in the above table, it was determined that certain trailer tires are overloaded. In making computations, the weight on the drawbar (tow bar) was subtracted from the total weight of the trailer and 300 pounds (a conservative figure) was added to represent the weight of ice, groceries, bedding, clothes, kitchen utensils, etc.

As to tires, some consideration should be given to the service to which the trailer is to be subjected. If a few thousand miles during the summer or winter is all the trailer is likely to be used, undersize of tires will not be serious since the tire-life will likely be determined by time and not by wear.

### Weights

Consideration should be given to weight requirements per tire and size of tires (see *Tires*). It is very essential, from an economy standpoint, that the trailer be as light as possible and still be strong. The weight is not very important in level-road operation but is very important in hilly country, as a few pounds' reduction in weight may allow the hill to be negotiated in high gear instead of requiring a shift to second. The weight is, of course, very important as affecting ease of starting and stopping.

## **Body Frames**

The most important change in trailers this year is the introduction of the steel body frame. Practically all that has been said by Consumers' Research for years about the advantages of steel bodies for automobiles is also true of steel bodies for trailers. Three manufacturers who have entered this field this year have introduced steel body frames.

They are: Bender Body Co., Hayes Body Corp., and the Pierce-Arrow Motor Corp.

When the builders of steel trailers get into production with dies which will stamp the external surface as well as the frame and produce trailers with rounded shapes, such as our so-called streamlined automobiles, it is very probable that the wooden-frame manufacturers will drop out of the picture.

It is very difficult to determine the method of construction and materials used in trailers. A number of cases have been brought to Consumers' Research's attention where trailers have turned over when a rapid maneuver was made with the car. In most cases, very little damage was done except spilling and disarranging the contents of the trailer. With a well-engineered trailer, there is very little chance of such an occurrence. The trailers with low centers of gravity and proper balance can be hauled more safely. There are very strong arguments in favor of the all-steel trailers. As the body dies are very expensive, it is reasonable to assume that considerable research will have been made with models before the actual dies are made, in order to obviate expensive changes; thus the consumer is more or less assured that the steel body will be exceptionally well designed. The covering will be less apt to leak and the frame and covering will not deteriorate as rapidly.

Until recently very few steel chassis were built. The wooden beams of the wooden chassis were very flexible, causing distortion of the body, and on account of their thickness required the center of gravity of the trailer to be unduly raised. The steel chassis with wooden frame gives very little additional rigidity but does allow a slightly lower center of gravity. The steel chassis with steel frame gives a welded truss framework which lends considerable rigidity to the structure as a whole. The more rigid the structure is, the longer will be the life of the interior lining, fittings, cabinets, etc. ¶ If possible, ride in the trailer on a rough road at thirty-five or forty miles per hour before

purchasing. The trailer should have no tendency to sway under any condition of operation.

#### Insulation

Most important after stability, lightness, and durability are the insulating properties of a trailer's construction. Most trailers use a plywood interior lining with about a threequarter-inch air space between the interior plywood and the Masonite, pressed board, sheet iron, or aluminum exterior covering of the walls. The kind of material used in constructing the walls, so far as insulation is concerned, is of little consequence as they are practically all painted and are dense materials, thus having little or no effective insulating properties of their own. The one-half- to threequarter-inch air space affords fair insulation. In case the air space is much smaller than one-third inch, heat is transferred from the interior lining to the exterior covering by conduction, and if the air space is increased, the space becomes sufficiently large so as to allow air to circulate, thus favoring heat transfer by convection. The roof in most cases is probably a little better insulator, as the metallic aluminum paint is very good as a heat reflector and some insulating material is usually added. The floors are usually plywood or wood covered with linoleum, affording very poor heat insulation. The bright metal surface is considerably better than painted surfaces in the sun and in still air, but if the air is in motion over the surface of the trailer, the bright reflecting surface is of little help in keeping the trailer cool (or warm, in cold weather). The insulation of the trailers of today is probably as good as that of a weatherboard-studding-lath-and-plaster dwelling, but needs to be better and could be made considerably better if the air space were filled with an insulating material. A good insulator is composed of practically any fibrous material which will form a loose mat for trapping air in numerous small spaces.

Note: In the January issue of Consumers' Digest, there appeared an article setting forth some carefully drawn specifications for automobile trailers.

### BEAUTIFUL AMERICA

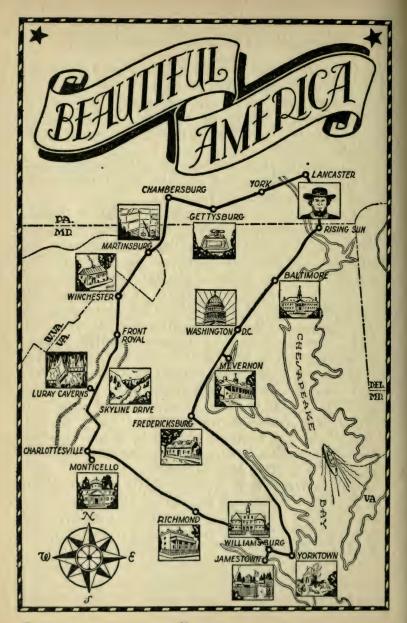
A Motor Vacation Through Historic and Scenic Virginia

otor vacations, with or without trailers, are becoming increasingly popular in the United States. The American Continent offers the touring motorist an unsurpassed variety of scenic beauty and historical interest. The routes of travel which may be followed are almost limitless in number.

From time to time, Consumers' Digest will suggest itineraries for those who have little vacation time at their disposal and wish to economize in motor travel.

The route shown on the accompanying map (next page) includes as its outstanding features, the following: Lancaster County, Pa., with its distinctively garbed Mennonites and their even more distinctive carriages; the Gettysburg National Military Park, where the bloodiest battle of the Civil War was fought between the forces of General Lee and General Meade: the Skyline Drive in the Shenandoah National Park, one of the most beautiful drives in the world; Luray Caverns, with some of the most beautiful stalactites and stalagmites to be found anywhere; Charlottesville, Va., seat of Thomas Jefferson's University of Virginia; "Monticello," the home which Jefferson built and where he lived from 1770 to 1826; Richmond, Va., the capital of the Confederacy with numerous monuments of early America; Williamsburg, Va., where the restoration of America's first permanent settlement now reveals the consummate taste of our ancestors in the matter of building; Yorktown, where Cornwallis surrendered to Washington; the historic highway (U. S. Highway 17) along the southern side of the Rappahannock River; Fredericksburg, the home of the Washington family; "Mt. Vernon," the celebrated home of the first President; Washington, D. C., and Baltimore, Md.

The route, as sketched, extends 695 miles. A minimum of about five days should be allowed for the journey, and it may, of course, be begun at any point. The route is easily



accessible to almost one half of the entire population of the United States.

Along the route there are thousands of tourist homes where one may experience the proverbial Southern hospitality and comfort. The charge per person is usually one dollar a night. Meals should be figured at the rate of approximately two dollars a day for each person. Excellent Southern cooking may be found with ease, especially if one makes inquiry for home cooking in the neighborhood of his tourist home.

At current prices, gasoline and oil for the journey will hardly exceed ten dollars. Gasoline will, however, be found more expensive in Virginia than in Pennsylvania. The total cost of the tour for one person, exclusive of entrance fees to historical monuments and the Luray Caverns, will approximate twenty-five dollars. For each additional person, the cost should not exceed fifteen dollars.

Membership in the American Automobile Association entitles one, among other privileges, to a set of valuable Tour Books. These books contain much indispensable information for the motor traveler.

201 1110 1110 1011 1111 11111	Route	
	No.	Miles
Lancaster, Pa., to Gettysburg	30	54
Gettysburg to Chambersburg		25
Chambersburg to Hagerstown, Md	11	23
Hagerstown to Martinsburg, W. Va	11	20
Martinsburg to Winchester, Va	11	22
Winchester to Front Dove!	3	20
Winchester to Front Royal	3	
On Skyline Drive in Shenandoah National Park		66
Side trip to Luray Caverns, leaving Skyline Drive		-00
midway and return	211	20
End of Skyline Drive to Ruckersville	4	12
Ruckersville to Charlottesville	29	15
Side trip to Monticello		6
Charlottesville to Richmond	250	71
Richmond to Williamsburg		50
Side trip to Jamestown		12
Williamsburg to Yorktown		16
Yorktown to Fredericksburg		106
Fredericksburg to Washington, D. C	. 1	45
Side trip off Route No. 1 to Mt. Vernon	1	73
	1	40
Washington to Baltimore, Md	1 .	
Baltimore to Rising Sun		41
Rising Sun to Lancaster	666	31
TOTAL MILES		695



HE real proof of whether your car is operating in an efficient mechanical manner or not is in the amount of fuel consumed. Short-distance test runs have some value for comparison, but for the average car owner the number of gallons of gasoline used for running his personal car 1,000 miles under his usual driving conditions furnishes, perhaps, more valuable information and is easy to ascertain. Before making any tests, it is important to check approximately the accuracy of your odometer with your tires inflated to the proper standard pressure, as many odometers are inaccurate. This checking can be carried out by driving over a measured mile or a known longer distance as given by a reliable map.

As nearly as possible, at the completion of about 1,000 miles, have the tank filled *completely full* to the top of the filler-pipe. Keep an accurate record of gasoline as you buy it and, at the completion of the next 1,000 miles, have the tank filled full again. Divide 1,000 miles by the number of gallons used and you have your average mileage per gallon.

The results will probably surprise you and disappoint you as well. The dealer probably told you the car would do twenty miles to the gallon, and over 1,000 miles you averaged twelve and one-half! That twenty miles to the gallon he told you of was probably mostly downhill, or on the level with a strong wind blowing you along, and at an average speed of only twenty-five miles per hour.

What you are interested in is the average mileage per

gallon over the life of the car. Keeping track of the average mileage per gallon for each 1,000 miles is a good way to continually check the car's performance. It is very easily done, and it *should* be done. The owner of a ship certainly never fails to keep track of the amount of fuel used in relation to the distance traveled. Do as much for your car and you will profit thereby. If the average mileage you are getting does not satisfy you, take steps to improve your car's condition (by a proper tuning up of ignition system and valves, perhaps), or amend your driving methods.

When you are satisfied that the car is doing about as well as possible, keep it up to that standard. If you suddenly find the mileage drops off, find out why. There's a reason. Is there a fuel pump leak, gasoline getting into your crankcase? This will soon mean expensive engine repairs if you don't correct it. Is there a gasoline leak anywhere else? A float valve in the carburetor that lets a half gallon or so of gasoline get away during a night in your garage? Are you getting all the gasoline you are charged for?

Probably the easiest way to keep a record is merely a folded piece of cardboard, with pencil inside and rubber band around it, kept in the glove compartment or the pocket of the car door. Just write down the gas you buy, when you buy it, and at the end of each 1,000 miles transfer the information to your permanent record, which should be a record book kept in the house.

A quicker way, though not giving long-time-average results, is to fill the tank full and note the mileage at the time. Then run until tank is nearly empty, fill tank completely full again, and note mileage again. The amount you added to refill the tank is, of course, the amount used. The corresponding difference in mileage reading on the odometer divided by the number of gallons of gasoline consumed will give the miles per gallon.

The following are the results of test runs on the Ford V-8; "60," "85," and the Lincoln Zephyr. In each case the gaso-

line tanks were filled to overflowing and the car shaken until no more fuel could be admitted, and this procedure was repeated at the end of the test. The estimated possible filling error was not over 2.5 per cent. In the following table, the comparison of the three cars tested is given; it will be noted that the test runs are not strictly comparable as to conditions of loading, temperature, humidity, etc. The Ford V-8, "85," was deliberately given a greater passenger load to compensate as nearly as possible for the different conditions under which this test was conducted. Nevertheless, the test results are useful for comparison purposes. These tests were carried out as accurately as possible without the use of elaborate test technics and numerous runs (with and against the wind, for example) to cancel out uncontrollable factors. It will also be noted that the test of the Ford V-8, "85," is divided into two parts. This is due to the fact that on the outward trip excessive acceleration was used and the car was forced over mountain grades at higher speeds than normal, without real regard for economy or the welfare of the engine, whereas, on the return trip, more moderate rates of acceleration were used and the car permitted to ease up on the upgrades.

Model	Speed- ometer Reading at Start	Oil Vis- cosity	Pas- senger Load	Gross Average Speed	Miles Run	Gallons of Gas	Miles Per Gallon
"60"	940	20	150	42.5	236.7	10.10	23.43
"85"				50.6	145.1	8.20	17.70
"85"	3818	20	580	43.0	117.0	5.95	19.66
Zephy	r 1864	20	150	44.8	259.0	14.45	17.92

#### Those Horrible Billboards

"We spent \$500 last summer seeing the East. Half of the mountains are brought to you through the courtesy of soft drinks and salad oil. The lakes are cool and lovely but you'll take beer, gum, cigarettes, and corn plasters as part of the general picture. And you can't find a gasoline pump for the signs around them. It cost us \$500 to drive 'over the hill' to the billboards. We're broke and we're disgusted."

From Yankee, April, 1937.



NE wonders why there should be a Third Class to begin with. As the passenger-carrying trade on the Atlantic was originally in the hands of the English and as England is—or was—a land of class distinctions, it follows that these distinctions should carry over into the sea. Ships were originally divided into first class, in which the "best people" traveled; second class, created for their personal servants, maids, valets, and governesses, and for members of the tradesman class; and third class or "steerage," for the Scotch, Irish, and German emigrants and for those hordes from Central Europe whose children, in another generation, were destined to become our own "best people."

These three classes were at one time necessary: servants must be kept from their "betters" while as between First and the "great unwashed" in Third there once existed a vast gulf which was not only social but hygienic and bacteriological as well. These three divisions are still with us, while the reasons for them have largely disappeared. Such few immigrants as we now receive are mostly of the white-collar class. Second Class is now called Tourist (because the average American objects to the implications in the term "second class") and First Class, for some strange reason, is called Cabin Class.

In the meantime, a new kind of traveler has grown up in the United States, a group—for want of a better wordloosely called "students." "Students" are young people or those in middle life who are supposed to have more brains than money. We can assume that their funds are limited and that they see no reason for paying \$287 to cross the Atlantic in First Class when the same journey can be made in comfort by traveling Third and paying only \$99 ("Queen Mary" rates). Since the flood of emigrants ceased some years ago there has developed the keenest sort of competition to lure the American "students" into those cabins down by the water line and back over the propeller.

In the older ships built before the war, of which the "Berengaria" is typical, Third Class is still pretty well down the social scale, but when you see Third Class on the new "Queen Mary" you may wonder if it's worth the difference to be in First. Third on the "Queen Mary" is better than Second and fully as good as First on many ships which old travelers could name. It has good beds, good linen, hot and cold running water, dressing tables, mirrors, reading lamps, and ample wardrobes. The public rooms, with windows which look out forward, are surprisingly sumptuous and well designed. Most of these third-class cabins are in the forward part of the ship. For this reason many travel agents claim that Third on the "Queen Mary" is more desirable than Tourist, which is in the stern and gets the worst of the vibration in this ship.

The "Normandie," which is the next newest steamer, is said to have the next best Third Class on the Atlantic—nice cabins with good ventilation, all sorts of gadgets and conveniences, and fine public rooms. Here most of the Third is located in the extreme stern and therefore gets more than its share of vibration. This slight disadvantage is offset by the fact that on the French Line no one seems obliged to remain in the class to which one is assigned. Tourist-class passengers seem to do most of their dancing in the Cabin Class while Cabin Class does a lot of visiting in the Tourist section, and those third-class passengers who pass out a

little baksheesh soon have the run of the ship. We should point out that the best third-class cabins on both the "Queen Mary" and the "Normandie" are "convertible" and therefore become tourist class in the rush summer season.

Next we should list the "Bremen" and "Europa" both of which have excellent third-class accommodations, both located in the forward part of the ship. The German lines seem to have more planned, and better organized, entertainment for their passengers than the competing lines.

The "Washington" and "Manhattan" come next, followed by the "Britannic" and the "Georgic," then come the "Lafayette" and the "Champlain." The "Statendam" should be included, and our story is about complete.

Both the "Pilsudski" and the "Batory" of the Polish line have splendidly appointed cabins and public rooms in the Third—even a fine gymnasium and tile swimming pool. As these two new ships carry only two classes, their Third would correspond to Tourist on some of the smaller ships.

The thing which so often makes Third Class unacceptable to American "students" is not so much the lack of conveniences as the lack of manners on the part of one's fellow travelers. If one is sensitive about long whiskers and strange eating habits, then one might be cautious about traveling Third on the Polish ships.

The Italian steamers fall under the same caution. Few American "students" will consider Third Class to Mediterranean ports because of the general, and more or less important, halo of garlic and other strange condiments which envelop one's fellow travelers.

Regarding food, one is sure of good food in the Third Class of almost any ship. It is easy to improve the food when competition makes it as necessary as it does today. Since it is next to impossible to change the cabins and interior arrangement once the ship is built, the new ships are the best travel buys. It's a good rule not to travel Third on a ship which is more than six or seven years old.

There is a vast difference between the third-class cabins on ships built before and immediately after the war and those built within the last six or seven years—the old ships have narrow cabins and narrow bunks, no running water, only the old-fashioned tip basins, no ventilators, no ward-robes, and usually only one electric light which, generally, is high upon the ceiling.

The newest ships have better beds, forced draft ventilation, hot and cold running water, wardrobes, several lights, including individual reading lamps. The newer the ship the better the accommodation and the more gadgets.

Italy is now in the lead in the cheap travel field. All travel costs will be down as compared to 1936. The trip which averaged \$12 a day last summer should cost about \$10 a day this year. (This refers to the time you are ashore in Europe.) Steamship fares will be up probably five per cent next summer due to actual increases in base fares and to repricing the better cabins on a higher schedule.

Italy will lead the cheap travel parade with 50 per cent rail fare reductions to tourists and new low hotel and sightseeing rates. For example, one can now stop in superior hotels, such as the "Flora" in Rome, the "Savoy" in Florence, the "Royal" in Naples, and the "Royal Danieli" in Venice, for \$3 a day including room, breakfast and dinner, and including tips and taxes. Comfortable medium-grade travel in Italy will average about \$5 a day.

France will rate next with an average of about \$8 a day. England and the British Isles for the same services will cost about \$10 a day and up, and Switzerland around \$12 a day. Holland and Belgium will rate between England and Switzerland. Germany is not expensive if you stay long enough to get the 60 per cent rail reduction and if you buy your train tickets in Germany, not outside the country, and take full advantage of the registered marks which may be purchased (as of February 1, 1937) at about 23 cents.

B. TRAVEL WISE.

## TESTIMONIALS, F. O. B.

More Light on Big Names in Advertising

By

ALVA JOHNSTON

NE of the outstanding testimonial events of recent years was the rescue of the crew of the shipwrecked Florida by Lucky Strikes. Captain Fried, Chief Officer Manning and Bosun's Mate Wilson of the America modestly belittled their personal part in this gallant feat and gave the credit to Lucky Strikes, more particularly to the toasting process which gives Luckies their toasted flavor.

Lucky Strikes and Old Golds ran a close race to see which would be first in the rescue of the imperilled Mariners. Luckies won by a very close margin. In fact, immediately after Captain Fried had signed with Lucky Strikes for \$1,000, Old Gold offered him \$2,000, which embarrassed and upset the brave and bluff sailor considerably, because he not only preferred \$2,000 to \$1,000 but he preferred Old Golds to Luckies.

Captain Fried and his fellow endorsers were stampeded into giving their testimonials under circumstances which made them seem to be obeying orders in doing so. This big testimonial scoop was engineered by F. Darius Benham, one of the most dashing of the testimonial wanglers. Mr. Benham's hobby is the organization of impromptu parades and celebrations in New York for heroes that Grover Whalen overlooks. He had twice turned out his own private army of hero-worshippers to welcome ship captains who had performed gallant feats in the service of the United States Lines. When the news of Fried's rescue of the men of the Florida came over the radio, Mr. Benham hurried to the offices of the United States Lines, where he was, as a matter of course, put in charge of the celebration. "Benham in charge," was wirelessed by the line to Captain Fried.

When the America came into the harbor, F. Darius Benham was at the right hand of Grover Whalen. Benham made

a megaphone of his hands and shouted to Captain Fried, "I want to see you."

"I got the radio," called back Captain Fried. Benham cupped his hands again.

"Lucky Strikes," he cried hoarsely. Captain Fried nodded. Chief Officer Manning came within hearing distance. Manning signified that he was at the orders of Benham.

"Lucky Strikes," barked Benham. Manning nodded. Meantime, word painters had reduced the tale of the heroism of Lucky Strikes to testimonial form. When they stepped on shore Captain Fried and Chief Officer Manning signed in the places indicated as the bottom of the stirring sea stories and each received his \$1,000 check. Bosun's Mate Wilson was signed later for \$200. On learning that Old Gold had offered \$2,000 and that Captain Fried felt a little disturbed about it, Lucky Strikes did the handsome thing by presenting a second check for \$1,000. Captain Fried later felt that he had made a mistake although he had half supposed himself to be acting under orders. A negligible circumstance in connection with this great Lucky Strike triumph is that Captain Fried smokes Old Golds, Bosun's Mate Wilson smokes Camels and Chief Officer Manning doesn't smoke.

Captain Fried is not a world-famous connoisseur on tobacco, but it is a principle of the testimonial industry that anybody in whom the public is interested can be made an authority on anything. Other things being equal, the preference is given to the authority who knows something about the subject; but any man or woman who figures favorably on the front pages becomes good copy on all matters. The theory of the testimonial is stated as follows by Stanley Resor, the best qualified man in the world to pronounce upon the subject:

"We want to copy those whom we deem superior in taste, knowledge or experience. The desire to emulate is stronger in women than in men. Lombroso, the celebrated psychologist, explains it in terms of woman's ability to excite her

## BORN MORE THAN THIRTY YEARS TOO SOON!



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imagination with external objects. It enables her to become a princess or movie queen by using the cold cream or toilet soap they recommend. Finally, people are eternally searching for authority. Democracy, even in name, is new. Royalty, aristocracy, feudalism, dominated the world for scores of centuries instilling in the masses a sense of inferiority and an instinctive veneration for their betters. This respect for authority is so little discriminating that we listen to a motor maker's opinions of history, an inventor's dicta on religion and a theatrical producer's theories on education."

Mr. Resor admits that authorities have in some instances been strangely misused. Lady Heath, the British air-woman, for instance, received \$500 for endorsing Cutex, a fingernail polish, a few days before she made her indignant statement to the press that the Automotive Club of Detroit had snubbed her by cancelling an invitation to dinner because her hands were grimy. Another odd authority, who was sworn in by the Royal Portable Typewriter, was Cagle, the star halfback at West Point. "It is the greatest aid I ever knew in keeping up my grades," said Cadet Cagle. F. P. A. looked up Cagle's grades and found that, in a class of 266 men, he stood 232nd in mathematics, 207th in English, 237th in French, 239th in History, 211th in Drawing, 212th in Tactics and 122nd in Conduct.

Cornelius Vanderbilt, Jr., is one of many curious authorities on cigarettes. He received \$1,000 for an endorsement. Because of a delicate throat he never smokes and was seized with a violent fit of coughing when he posed for his testimonial photograph. Lady Diana Manners, one of the few Pond's endorsers who really was beautiful, announced in interviews that her beauty was due to fresh air, exercise and plenty of plain soap and water.

One of the supreme authorities of the testimonial industry is the Princess Maryanna Mayorskaya. Her Royal Highness endorsed the Borzoi books, saying, "Mindful of the inherent responsibilities of royalty in shaping the ideals of bourgeoisie, I am careful never to be seen in public without a Borzoi book." The Princess Maryanna is not to be found in the Almanach de Gotha, nor in any other register of nobility. The Princess, in fact, is a small, dark, frizzly-headed man who makes a splendid living thinking up trick advertisements and publicity. He decided, reasonably enough, that it would be foolish to pay several thousand dollars for a testimonial from a Princess when he could invent a Princess of his own who would do just as well. . . .

Gene Tunney is an ethical hair-splitter. He declined to endorse Nuxated Iron solely because he did not use it. All modern champions have been Nuxated Iron men. Jess Willard publicly credited Nuxated Iron with the knockout of Jack Johnson. Jack Dempsey publicly credited Nuxated Iron with the knockout of Jess Willard. Ring tradition and a large check called on Tunney to credit Nuxated Iron with the defeat of Dempsey. "It isn't honest," said Tunney, and nothing could move him. He did endorse Nujol, but he used it. Lucky Strikes offered him \$10,000 for a modified endorsement which did not state that he smoked them but Tunney would give no aid or comfort to any kind of cigarette.

There is one slight flaw in Tunney's testimonial record. As he and several friends arranged themselves before the camera when he was training for the fight with Heeney, Tunney suddenly called on the photographers to wait. He trotted off, removing his suspenders and trotted back adjusting his belt. "I've endorsed the Hickok live leather belt," he apologized. Later in another unguarded moment, Tunney was again untrue to live leather, saying in an interview that he preferred suspenders because they did not constrict the intestines.

Some of the most subtle heads in America have long been scratched to find some method of obtaining medical endorsements in the face of the iron-clad ethics of the medical profession. Fleischmann's yeast succeeded at last in landing two excellent authorities, Dr. Ira L. Hill of New York and Dr. H. H. Rusby, Professor of Pharmacology at Columbia University, who occupies a half column in Who's Who in America. Both men were brought up on charges by New York medical societies; both saved themselves from expulsion by promising to sin no more. Dr. Rusby was reprimanded privately; Dr. Hill was reprimanded privately by one medical body and publicly by another. Testimonials have been freely obtained, however, from European medical men of sounding name. Some light is thrown on the procedure by a letter of a London physician to the British Medical Journal, saying:

"On April 3rd of this year, my secretary made an appointment for me to see a Miss E. She duly appeared, not, however, in the guise of a patient, but in that of an advertising agent for a well-known brand of yeast. Her proposition to me, made most charmingly, but in the best American business manner, was that I should write a testimonial extolling the virtues of yeast, this testimonial, together with my name and photograph, to appear in magazines, newspapers, and (or) in any other advertising media published in the United States of America and Canada. For doing this I was to receive the sum of 150 pounds (\$750). To quiet any scruples I might have against doing so, I was informed that four members of my profession in London had already signed the agreement, a copy of which is here appended."

Following the use of individual authorities there has recently developed the use of massed authorities, or statistics. Palmolive soap, for instance, has made an accurate count of the beauty shops which use Palmolive soap and finds that they number 14,592. Old Golds have been using statistics with distinguished success in their concealed name tests. Some of the guesses as to the cause of the remarkable winning streak of Old Gold in the Old Gold tests are as follows:

First, the extraordinary competence of Old Gold tellers; second, the assertion that the other three cigarettes used in

the test are rolled so tightly that the smoker can hardly draw smoke through them; third, the theory that the contests are governed solely by laws of chance; that each cigarette will be in the lead at one time or another; and that the sole art is to stop the contest when Old Gold is out in front.

The Norma Talmadge incident indicates that Old Gold does not dope or mistreat the rival cigarettes. A great crowd had gathered to see Norma Talmadge take the test, but some one had forgotten to provide the cigarettes. Luckjes, Camels and Chesterfields were quickly borrowed from those present, but a boy had to be sent to the drug store to get Old Golds.

Old Gold scored one of its sensational victories at Princeton. . . . Old Gold's own contest resulted as follows:

Old Gold, 118; second cigarette, 75; third cigarette, 74; fourth cigarette, 36.

A little later the graduating class at Princeton voted on their favorite cigarettes. This contest, carried on without the aid of Old Gold election officials, resulted as follows: Lucky Strikes, 144; Chesterfields, 90; Camels, 60; Old Golds, 38.

### Among the Recent Testimonializers

Miss Eleanor Roosevelt \* \* Pond's Cold Cream
Mrs. Louis Swift, Jr. \* \* Camel Cigarettes
Clark Gable \* \* Dodge Automobiles
Madeleine Carroll \* \* Lux Toilet Soap
Janet Gaynor \* \* Larvex

Senator Gerald P. Nye \* \* Lucky Strike Cigarettes
Bette Davis \* \* Lux Toilet Soap
Shirley Temple \* \* Quaker Puffed Wheat
Claudette Colbert \* \* Calox Tooth Powder
Gladys Swarthout \* \* Pullman Cars

Mrs. Rodman Wanamaker \* \* Pond's Vanishing Cream
The Dionne Quintuplets \* \* Almost Everything

## I AM ANTI

By Charles Rudolph

If have reached that stage of opposition to things only after I have been intrigued, often too willingly, by scrupulous and unscrupulous manufacturers of products with which I come into daily contact in my normal routine of living.

I repeat that I am anti, and I am. Years ago I obligingly entered a baby-naming contest in which the bewildered foster parents of a doorstep baby enlisted the aid of the entire nation's populace in finding a proper label to attach to the marooned cherub. There were no strings attached. You bought a package of Super Balloon Flour for forty-nine cents, sent in your sales tag with a choice cognomen for the nameless one, and a ten-thousand-dollar check was yours.

Should you fail to win this grand prize, which you were assured wasn't at all likely, you were still in the money. There were, in addition, three thousand and ninety-seven prizes ranging from two thousand dollars to a constantly dwindling amount, until the last one thousand prizes were nice, crisp one-dollar bills.

I took the matter seriously. Never in all history has a baby been named more properly and beautifully than was this foundling named by me. My creation was artistry personified. It could not be excelled I knew, but when the list of winners was published, my name was not among them. The winner, it seems, was a poor grocery clerk in New York, who had been properly interviewed, who would not give up his job, but who would give the wife and kiddies the chance that they so justly deserved. The rest of the lucky ones were located somewhere between him and the west coast, the farther west the smaller the prize, until the last three of the dollar bills were evenly distributed between the states of Washington, Oregon, and California.

I am now distinctly anti Super Balloon Flour. Anything in which it is advertised as an ingredient is to me highly nauseating and, if eaten, causes something akin to acute indigestion. I will have none of it.

Sometime after this very disconcerting and highly unprofitable incident, I ventured into a contest of somewhat different caliber, it having nothing whatsoever to do with babies. The sponsors merely asked the users of Sure Romance Soap to write less than one hundred words and therein extol the virtues, glories, and beautifying possibilities of their unsurpassed product. Just enclose three wrappers.

I enclosed the wrappers. I did better than that: I so highly praised their soap that, I was told later and on good authority, one of the judges actually bought his first trial cake of it on the strength of my enthusiasm. But my fervent ardor availed me nothing.

I received a printed circular from the judges in which they were lavish with their praise of my ability. So highly did they esteem my valued article that I drew an honorable mention. There were so many letters, they informed me, that the selection of the sixteen hundred best ones was a gigantic task but fairly and efficiently done. It seems that a mechanic in New York scored the highest and walked off with the two thousand dollars. Other prizes were equitably distributed, but it seems that the farther west one lived, the less the prize would be, and when the shores of the Pacific were reached, the monetary prizes were exhausted. Good wishes and honorable mentions were abundant for the Pacific coast dwellers.

So now, believing firmly that there is no honor amongst thieves, judges, or soap manufacturers, I am anti Sure Romance Soap, and all the cajolery in the world could never make me see the supreme benefits that may be derived from its use.

Now I will have to confess that I am not exactly com-

petent and efficient in the business of naming babies, nor do I particularly lay claim to enormous proclivities as a connoisseur of fine soap, but my abilities as a typewriter mechanic and salesman have never been questioned. Years ago I was employed by the largest typewriter firm in the world, and as such I was in constant touch with the sales force, attending their conventions, and, whenever I could horn in, attending their banquets.

I admit I know my typewriters, so, when this typewriter firm announced that they were having a contest in which there were three thousand prizes ranging from two thousand dollars clear down to a typewriter ribbon, I stood ready. Here was a natural. Right down my alley, so to speak. All I had to do was to write one hundred words stating convincingly that the whispering typewriter of today is as far superior to the old noisy type as the present motor car is to the obsolete horse and buggy.

Here was something which was an open book to me. I felt that I was being called upon to master a situation which had evidently never been mastered by anyone else on the west coast, namely to bring a first prize out here.

I sat down and with businesslike acumen and precision dashed off the hundred prize-winning words which were hurtled across the continent by air mail into the hands of the waiting judges.

And then for days I lightheartedly walked the streets, window shopped, picked out such articles as I thought would befit a prize winner of national renown, and slept contentedly at night. . . . Now I am anti whispering typewriters. I can see their shortcomings and mechanical imperfections without close scrutiny or inspection. They are not the typewriter I would choose were I suddenly to embark on a career of short story writing. I would shun them as I would shun a plague. I just can't see them.

Today I got a list of prize winners and it seems that a bookkeeper in New York had the real fundamental principles embodied neatly and precisely in a soul-stirring epistle of clatterless typewriterology, and the first prize, of course, went to him. The other prizes were distributed as the impartial and just judges judged best. It is needless to say that the farther west the prizes went, the smaller they became, and when the west coast was reached, there remained one beautiful two-color typewriter ribbon to be awarded.

#### Death in the Crib

Lead poisoning is rarely thought of as a cause of illness in children, yet this malady appears far more frequently in young children than one would generally suppose.

A dramatic incident which recently occurred in the southern section of the city is typical of the entire problem. A workman painted the fence of the factory where he was employed.

Having some paint left over, he painted his child's high chair and bed. Several months later the infant was dead of lead poisoning. Subsequent investigation showed that the child had chewed on the paint and that the paint was of high lead content.

Improved and more readily available methods of detecting lead in the blood and the other body fluids, together with a growing "lead consciousness" on the part of the medical profession are factors largely responsible for the increased recognition of this condition in children.

Health News (Baltimore)

## INVITING IT\*

A Chemist Discusses Cosmetics and Legislation

ITH the opening of Congress, two bills were introduced, S. 5 by Senator Copeland, and H. 300 by Representative Chapman, each designed to provide a control of food, drugs, and cosmetics that would be more satisfactory or at least a greater protection to the consumer. Inasmuch as the committees, which must first attend to this legislation, are busy with other matters, nothing much is to be gained by introducing the bills, for if history can be taken as an indication they will be materially changed, and until something is known of their final form, discussion can wait. It seems likely, however, as in the preceding Congress, that one of the chief points of contention will be whether truth in advertising where food, drugs, and cosmetics are concerned shall be determined by the Food and Drug Administration or by the Federal Trade Commission.

Meantime, the industries that will be affected most by such improved laws seem to be actually inviting someone to take charge of the situation, and the facts which science has to offer or could ascertain continue to be ignored in many instances. The exploitation of science in the interest of business ballyhoo is a source of continual irritation to thousands of consumers.

This is the day of advertising slogans and the successful agencies are doubtless those which know to a nicety when the slogan must be changed and, after many a conference, get the desired inspiration. For the most part, from what we are told, the successful slogan is more frequently an accidental discovery, and in some agencies outside suggestions are quite taboo, it being the policy that all advertising campaigns, copy, etc., must originate within the agency.

Our train came to a stop at a station. On a wall directly opposite a dumb-looking girl with cigaret in hand stared at

<sup>\*</sup> This is an editorial from Industrial and Engineering Chemistry of which Mr. Harrison E. Howe is editor.

us from a bright red background on which was lettered the advice to smoke a certain brand during and after meals to aid digestion. No, we do not smoke, but we are interested in statements of this sort, and so began what has been a onesided correspondence in which we politely asked the makers of that cigaret to supply us with references to the scientific literature or to the reports of competent medical authorities upon which their claim is based. To be sure we were considering the matter from a chemical point of view. We claimed no expert knowledge in physiology. We made inquiries of those who might be expected to know the answer, and while we find that some phases of the question are perhaps debatable it is common knowledge in the medical profession that smoking not infrequently upsets the digestion. Be that as it may, we need only record here that our letters asking the scientific basis for the advice in the advertisement have neither been acknowledged nor answered.

Back in 1934 another advertisement caught our attention. This was in the field of cosmetics, and appearing in a reputable publication, we thought we would ask a few questions. Here was an irradiated skin cream which offered the beauty benefits of sunshine while you sleep, slowly, gently, safely applying tiny rays to one's skin all night long. It has required some time to reach the end of this story but, unlike the preceding example, in this case we found the manufacturers only too anxious to get to the truth. It now develops that the irradiated cream did give the effect of ultraviolet rays on photographic plates and, in the enthusiasm of that discovery, the advertisement was born but was soon discontinued when a reputable investigator found that, on the evidence of carefully conducted experiments, there was no radiation of any significance and the process was abandoned. That, of course, is to the credit of the manufacturers and no doubt when another idea is brought to them, the lesson having been learned, the investigation will precede, rather than follow, the advertising.

In the spring of 1936, another cosmetic preparation came to our attention in a full-page advertisement with an illustration in gilt. The attractiveness of gold was evidently being employed, but imagine our surprise to read that this new cream had been blended with pure gold, that science had transformed gold into an astonishing form, soft and pink, that cleanses and revitalizes skin tissue to exquisite loveliness. That, of course, was interesting, but how about this? "Every atom of this new live gold carries a negative impulse of natural electricity. This negative electricity attracts the positively charged impurities deep in skin pores. Every trace of dirt is drawn away, leaving your skin marvelously fresh and clean." We had visions of those early experiments with the magnet drawing iron filings around the table and were interested in getting at the truth of this new application of colloidal chemistry.

After some correspondence, we had analyses made and this cream was found to contain approximately 0.015 per cent of gold. Its charge is negative but it is apparently stabilized with soap as a protective colloid. Thus, the gold with the adsorbed soap micelle as a protective coating would be negatively charged and the properties of the gold sol protected by soap would be, not those of a gold sol, but those of a soap micelle. It has not been explained to us why the colloidal gold does not react with the ointment base, nor do we know what the magnitude of the electrical charge must be to yank the organic debris out of the pores of the skin, nor just why the embedded debris does not pull the gold in after it, rather than having the reverse phenomenon occur.

We are told that some further investigations give reason to believe that the cream we have been discussing may act as a mild skin stimulant, increasing the activity in a way to promote a cleansing action, but that is a very different statement from the published advertisements to which we have referred.

It is doubtful whether any of the cases we have cited, and

there might be many more, deal with preparations that are actually harmful to health, although as is well known the cosmetic field is not without its examples of horribly toxic preparations. We simply object to the prostitution of science as an aid to obtaining a five dollar bill for a product which, including the jar, may have cost a quarter. We frankly are skeptical that there is any cosmetic preparation, admitting that we have tried none of them, which would make our skin "grow young," "revitalize withered cells," "restore youth to the complexion," and do those other things that are so much desired in some quarters. Is it not strange how so many can be talked into believing the impossible? It appears to be clearly a case where, if people will not protect themselves from exploitation, the authorities must do the job for them. Far more serious cases might be discussed, but even in this big business of cosmetics common decency demands close adherence to the truth and some effort to produce and supply materials that can be sold on demonstrated merit and backed by scientific data that can be accepted as sound and authoritative.

"As Maine goes, so goes—." We wonder if that will be true with respect to consumers' protection. In Maine there is a cosmetic law, in the enforcement of which 136 beauty preparations have been put off the state market. No doubt the act will soon undergo Supreme Court test. Under it, according to the Department of Public Health and Welfare, some 5000 cosmetics were submitted for registration and, aside from the 136 which were outlawed, 23 others were required to change their formula in order to be accepted. Precautionary labels were attached to another 72.

Until we have laws which enable the authorities to enforce reasonable requirements and truth in advertising, the situation will not be bettered.

As Consumers' Digest goes to press, the Supreme Court of the United States has, by a unanimous decision, upheld the Maine cosmetic law.



By
THE LIQUOR CHECKER OF A LARGE HOTEL

of "free" competition more prettily exemplified than in the manufacture and dispensation of spiritous liquors or schnapps. The distiller has found the road to more profits in packaging and extravagant advertising, and the retailer trots along behind with his own petty tricks, some shocking and disgraceful.

The average man does not know, as he orders at a highclass bar a whiskey that is labeled, "Perfection of Blended Scotch Whiskey," etc., that the liquor is less than a year old. And he may not even suspect that, instead of the liquor of his request, poor as it is, he is given an inferior and even cheaper Scotch blend; so widespread is the practice of refilling bottles and substituting liquors.

I know exactly what I am talking about for I am employed in the liquor department of a hotel located in one of the largest cities of the country. This hotel, one of the largest and finest in the city, is very conservatively managed and has an impeccable reputation; and yet bottles are refilled daily and substitution is second nature. True, the amount of this is gradually declining, and there may come a day when it will be possible to get exactly what you ask for, regardless of its merit. Champagne cocktails are now made with imported champagne as the rider on the wine list promises,

although domestic was used for two years. Very old bonded whiskey is no longer adulterated with four-year-old bonded, and the four-year-old bonded is no longer made to go twice as far by the addition of ordinary rye or bourbon. But Haig & Haig and other premium-priced Scotch bottles are still filled again and again by hotels with a lesser brand, and the casual order for Teacher's or Vat 69 or Black and White, to mention a few of the more popular brands, is still supplied with the very cheap, very poor Scotch blend that is bought expressly for that purpose. Most of the substitution, in fact, is now in the Scotch bracket, perhaps because its characteristic flavor tends to mask any nuances of taste. In busy moments, the order for a particular brand of straight or blended rye or bourbon is apt to be filled with whatever bar whiskey is being used at the time, usually a fifteen- to eighteen-monthsold bourbon. The ordinary consumer, in fact, does not know or is unable to tell the difference between bourbon and rye whiskeys and exhibits very little critical taste of any kind. I am told, also, that after a drink or two a man cannot tell what he is drinking. Thus is much of the cheating rationalized.

Another form of substitution that is relatively difficult to detect is the use of California brandy and domestic triple sec or creme de menthe in mixed drinks, such as side car or stinger or other drinks that call for the use of such liquors. The manufacturers collaborate in this deception by the use of bottles and labels that are close imitations of those of more expensive brands. There are also many domestic cordials bottled and labeled to simulate imported goods, which, like wines, seem to have no domestic counterpart in quality or flavor. A cheap substitute for Benedictine is sometimes poured into the Benedictine bottle, but it is easily detected by anyone familiar with the genuine article, having a sharper taste, so it is generally used only in a Benedictine and brandy, where the brandy masks the difference in flavor. Substitutions are more or less common in

other cordials also. To escape detection, these depend on the customer's indifference or unfamiliarity with the goods.

To protect himself from some of the ranker deceits, the man who likes a wee nip now and then should thoroughly familiarize himself with some one brand, preferably one of a more or less distinctive nature. It would be well to purchase the liquor of one's choice by the bottle, seals unbroken, and become thoroughly acquainted with its flavors and characteristics at home. There is probably less substitution going on where one is served directly at the bar than where the service is by waiter from a service bar, often out of sight. Ask to see the bottle from which your drink is poured and examine it closely. If the stamps and label are fresh, bright, and clean, the chances are that the liquor is in the original package; but if the stamps and label are soiled, frayed, and worn in appearance, it would be a good idea to ask that a fresh bottle be opened in your presence.

The most substitution by retailers occurs in the more popular brands. King's Ransom, being of higher proof than most Scotch, is seldom adulterated for the fraud would readily be detected by liquor agents. Dewars Scotch is of distinctive flavor. The taste of Irish whiskey is impossible to counterfeit, and the same can be said for Canadian bonded whiskey, such as Seagram's VO and Walker's Canadian Club. It is not worth while to fake relatively slow-moving brands, and it must be remembered that popularity is not necessarily so much a measure of honest worth as it is the mark of an effective advertising campaign.

Communist Pie—The Russian idea of pie may be judged from the suggestion that soybean-milk residues be sweetened and combined with jam or jelly residues to make pie fillings. Equal parts of apple-butter residue, sugar, and soybean residue are proposed . . . collectivized mincemeat, probably.

The Glass Packer

# THE PLEASANT STRANGER

By CHARLES S. WYAND

again becomes a victim of those two pernicious summer-time pests, the housefly and the door-to-door book peddler. The housefly can be kept under some degree of control through the use of sprays and fly swatters. But the existing laws against homicide being as they are, there is little one can do to avoid the visitations of that worst of all human pests, the man or woman who insists that you buy the wisdom of the ages compressed into one volume and bound in genuine imitation morocco for only \$12.50 plus a few pennies postage (\$4 in advance, please).

As summer progresses, this bowing and smirking horde becomes increasingly troublesome. Presuming on the average woman's good nature and knowing that few persons would forcibly eject a caller, however annoying, these peddlers of one-volume culture extract literally millions of dollars each year from the purses of people who have too much common decency to meet oily rudeness with rudeness. In return for her money, the victim receives a tenth-rate hodgepodge of information thrown together by nobodies, poorly printed on cheap paper, garishly bound, and sold for a price that would purchase four *good* books at a reputable bookstore.

The cold-blooded and calculating manner in which this traffic in pseudo culture is conducted is astounding. Your original impulse to close the door in the peddler's face was a

sound one. If you weakened, you were outsmarted by a carefully trained nuisance, for the modern book peddler is taught to anticipate your reaction and now applies psychology rather than his foot to keep the door open in spite of your best efforts to close it.

Under the pressure of competition, the peddler has become sleeker. By shrewdly worded appeals to your sense of decency and by deliberate misuse of your hospitality, he wriggles into your living room and may even have you apologizing for your "rudeness" before he proceeds to collect his four-dollar commission on a book which costs you twelve dollars and is not worth the low-grade paper it is printed on. Moreover, it should be observed in passing that women are being employed as book peddlers with increasing frequency because a respectable looking woman can gain access to your home with greater ease than a man. Many of these women peddle books only in the summertime. They are usually middle-aged school teachers, and they are successful because their "professional" endorsement of the book seems important to the uncritical mind, and because their age and sex make it difficult for the indignant housewife to rid herself of their unwelcome presence.

The sales technique is essentially the same in all cases where "literature" is hawked from door to door. In the first place, virtually all summer book salesmen spend a week or ten days at some central office learning how to make you buy what you don't want. Following the office training, the neophyte spends a week in the field under the tutelage of an experienced hand at the game and then sets out on his own armed with sample pages, order blanks, and the right to collect three or four dollars commission on every book sold.

Lest the beginner forget what he has been taught, the company gives him a sales manual which summarizes everything he needs to know to make his summer a profitable one. All of the following quotations are taken from such a sales manual which is carried by the "representatives" of one of the most successful agencies now peddling books from door to door. The name of the "work" involved is not important. The significant fact is that the technique is typical and is characteristic of the sort of thing you will face this summer. Or, if you have already succumbed and really want to know how that nice young man (or woman) sold you a twelve- or fifteen-dollar book no one in the family wants, here is how it was done.

On entering a new territory, the peddler is instructed to hunt up immediately several of the more prominent people of the community and, by almost any means whatsoever, to extract from each of them "(a) an order for the book, (b) written recommendations of the book, and (c) a local reference list." The most frequent victims of these initial attacks are clergymen, the superintendent of schools and his teachers, the president of the school board, and the president or secretary of the Parent-Teachers Association.

After endorsements and references (including your name) have been secured, the peddler sets out for your home. His whole visit from "the introduction" to the sale "clincher" is carefully laid out and memorized beforehand. Every effort is made to camouflage his real purpose in calling until it is too late for you to retire gracefully. Here is how the sales manual describes "the introduction":

"Of course your prospectus should never be displayed. That would cause some to think they know your mission without an interview. Ladies carry their prospectus order book and two pencils in a music roll, newspaper, cloth bag, or large envelope. Men carry these in pocket under the coat, hung over one shoulder.

"Hurry up to the house. Always be in a hurry. Ring the bell, or knock, with determination. Step back, facing the door, and stand five feet away from the door with note book and pencil in hand. When the lady appears, pleasantly inquire, 'Mrs. Brown?' Answer, 'Yes.' 'I am M————,

Mrs. Brown.' Here energetically step to the door mat, or on the plain boards, scruff the dust or mud from your shoes. She should then step back and either by word or act invite you in."

But sometimes the best laid plans go wrong and Mrs. Brown may refuse to "step back." The manual tells the peddler just what to do in such "difficult but rare cases":

"If your customer should hesitate, introduce yourself at once and say, 'I should like to speak to you a moment, Mrs. Blank,' at the same time starting to step in as a matter of course.

"If she goes further and asks what you want, then is when your references come so nicely into play and will invariably admit you. If one of her friends sent you, say, 'Mrs. Jones wanted me to see you (slight pause), shall I enter?' Or, 'Miss Smith, George's teacher, wanted me to see you in regard to his school work.'

"If by chance no one sent you to this particular customer, we suggest the following in case she insists on knowing more about your business before you enter the house: 'Mrs. Blank (having the child's name, as is always best), is your daughter Mary in?'— Pause a moment, showing that you expect to be invited in; if you are not, say, 'I wish to speak to you a moment about her school work.'

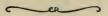
"If she still persists in learning your business from the doorstep, you should try to act puzzled or embarrassed to think that she did not understand you, and you could remark rather impatiently and yet good naturedly, 'Why, Mrs. Blank, that is just what I wished to explain to you, but it will take 5 or 10 minutes. Hadn't I better step inside?"

Once inside, the sales talk follows a carefully prescribed routine. According to the sales manual, the peddler's entry "should be followed by a few good natured remarks concerning the weather, the town, etc." After the social chat, the salesman is to "take on a more serious air and enthusiastically start the sales talk."

Every possible objection you can raise has been catalogued, and a stock answer worked out in advance. There are even instructions for "meeting objections before they are made." And when you finally succumb to the "enthusiastic" chatter and sign on the dotted line, you get the last of the sales program, the "collection formula" by which you are gently but firmly prodded into paying the cash installment. Even baby's bank is not safe from these fellows for, says the manual:

"If she [the housewife] says she doesn't have \$2.00, suggest to her that the child for whom she is securing [blank] Library will no doubt have absolute confidence in her, his mother, and allow her to use \$2.00 from his little bank for a day or two until she can put it back. If there is anybody on earth that he can trust, it's his mother."

And thus is the sale completed. Loaded down with Junior's pennies, the peddler hurries along to the next house on his reference list, rings the bell "with determination," and "steps back five feet facing the door." For the summer is short and, as the parting admonition of the sales manual has it, "a man gets only what he goes after."



#### Contact with Civilization

Speaking before the American Association of Physical Anthropologists, Dr. Weston A. Price, Cleveland scientist, declared that primitive racial stocks "lose their immunity to tooth decay and to associated degenerations" at their zone of contact with modern civilization as they adopt modern foods, "including white flour, sugar, polished rice and canned goods." This subject is discussed at length in Eat, Drink and Be Wary, by F. J. Schlink, available from Consumers' Research, \$1 a copy.



### By JAMES MICHAEL

ou can quickly be cured if you stutter or stammer! Send today for free book on how I cured my own stuttering and how I guarantee to cure yours." How many stutterers have pored over such advertisements and answered them only to find the "free book" a fraud, a "be-ashamed-of-your-stuttering" goading? Merely reading such literature does a stutterer much harm, but only those who have spent hundreds of dollars on a "cure" at one of the stuttering "institutes" and have then gone through the discouragement and humiliation of relapsing completely to their former condition can know the full extent of the damage such quackery can cause. And, after the relapse, how many stutterers have been able to collect the "guaranteed" refund?

Small wonder that after such experiences many stutterers give up hope of ever improving, thinking nothing can be done for them. Something can be done, but before discussing what the best sources of aid for the stutterer are, it is well to consider some of the more important general facts about stuttering. There are about 1,250,000 stutterers in the United States (in itself a proof of the untruth of claims of some stuttering schools). More than one-quarter are children; over eighty per cent are males. Some stutter so slightly that few of their friends realize that they have a speech defect; others can scarcely make themselves understood. Stuttering

may take different forms in different individuals. This has led to the popular distinction between "stuttering," in which the individual repeats the initial sounds or syllables of words, and "stammering," in which he cannot get started on the word he is trying to say. There is no essential difference between these forms of defect, and speech pathologists group them together under the term "stuttering," there being good reasons for preferring this term to "stammering."

If you stutter, you should recognize one most important fact at once. It is likely that, if you continue stuttering after the age of fourteen, you will stutter the rest of your life. Your chances of outgrowing it after this age are very slim. This is not a pleasant fact, but its implications are not so discouraging as they might seem at first glance, since a great majority of stutterers past this age make no intelligent attempt to correct their disorder. Less than half of the nation's stutterers have sought advice. Of those who do seek aid, a great majority consult incompetent or dishonest workers. Probably most stutterers could be greatly improved or cured by present techniques, but since many cases yield to no present therapy and most stutterers get either inadequate treatment or none at all, most of those who continue stuttering beyond their fourteenth year stutter the rest of their lives.

No one knows just what causes stuttering. There are several well-recognized theories with more or less evidence supporting each one. The most enlightened opinion in the field today recognizes a number of causes of stuttering, and any given case may be due to one or more of these. Authorities agree that stuttering is not due to malformation of the speech organs. Such abnormalities may produce various other speech defects, but not stuttering.

Considered as a group, stutterers are not so well adjusted to their environment as normal speakers, and their personality difficulties are more severe. The most important personality problems of stutterers are associated with their speech difficulties. Some theories of stuttering make much of this fact, basing the entire treatment on an attempt to solve the stutterer's problems and conflicts. But whether the maladjustment is conceived as being the cause or the result of stuttering, any successful treatment must take careful account of it.

It should be emphasized that no single technique or treatment will cure all cases of stuttering. This seems logical if one accepts the idea that a number of conditions can cause it. Some cases yield best to one treatment, others to another, and for some cases no effective treatment has yet been devised. A strange fact is that any method of treatment, no matter how silly or unscientific, will improve many cases temporarily and may even cure a few isolated cases. The explanation of this probably rests on the great importance of the mental state of the stutterer-anything in which he believes will help him temporarily, although, unless it has scientific validity, it will rarely give permanent help. Remembering that even nonsensical methods may give some temporary aid, one easily sees how various scientific methods based on different well-recognized theories of stuttering can cause considerable improvement in a large number of cases.

One must remember that the relationship between the clinician and the stutterer is, in all important respects, identical with that between a physician and his patient. There are ethical principles which no reputable clinician violates. One of the gravest infractions of ethics is the practice of guaranteeing complete recovery from stuttering. Though not as prevalent as formerly, this practice still persists. It is deliberate deception and is sufficient basis for condemning the institution or individual who guarantees to cure any given case. Many institutions which do not specifically guarantee cures do so implicitly, attempting to create the same effect upon the gullible without the responsibility of a defi-

nite guarantee. Such practice is just as unethical as an outand-out warranty of cure.

The American Speech Correction Association has been instrumental in raising the standard of ethics in the field. A majority of the best speech correctionists are members of this association, and such membership can be taken as presumptive evidence in favor of any worker, although some incompetent persons are also members. This condition is not peculiar to speech correction—it also obtains in the case of the American Medical Association, for example.

There is no consultant to whom a stutterer might go with greater confidence than to a speech clinic connected with an educational institution. Some of the finest speech pathologists in the country are working in college and university clinics, and practically all the fruitful research on stuttering in this country has come from these clinics. They have, however, several limitations.

The university clinic is primarily for the purpose of serving the students of the institution to which it belongs, and since its personnel and facilities are always limited, only a few, if any, outsiders can be accommodated. In a university offering graduate work in speech correction, most of the clinicians are students learning to deal with speech problems. This merely means that the treatment will be slower than otherwise, for student clinicians are almost always carefully supervised by experts, and there is little danger of their doing their cases any harm.

The following institutions have had speech clinics established long enough for the quality of their work to be judged. Those recommended have teacher-training courses, have adequate clinical facilities and personnel, and have had reasonable success in dealing with stutterers. Listings are based only on effectiveness in treatment of stuttering, other speech defects not being considered. Some of those given

a Qualified Recommendation specialize in some type of defect other than stuttering.

#### RECOMMENDED

Speech clinics of

Fort Hays State Teachers College, Hays, Kans. Northwestern University, Evanston, Ill. State University of Iowa, Iowa City, Iowa University of California, Berkeley, Calif. University of Minnesota, Minneapolis

#### QUALIFIED RECOMMENDATION

Speech clinics of

Birmingham Southern College, Birmingham, Ala. Brigham Young University, Provo, Utah Columbia University, N.Y.C. Iowa State College, Ames, Iowa Kent State University, Kent, Ohio Kenyon College, Gambier, Ohio Montana State University, Missoula, Mont. Ohio State University, Columbus, Ohio Pennsylvania State College, State College, Pa. Purdue University, La Fayette, Ind. Syracuse University, Syracuse Tulane University, New Orleans University of Denver, Denver University of Michigan, Ann Arbor, Mich. University of Missouri, Columbia, Mo. University of Southern California, Los Angeles University of Washington, Seattle University of Wichita, Wichita, Kans. University of Wisconsin, Madison, Wis. Western State Teachers' College, Kalamazoo, Mich.

Since staff changes may rapidly and completely alter any clinic mentioned, this list will be obsolete within two years. Many clinics which cannot now be recommended for treat-

ment of stuttering may be worthy of such recommendation within two years.

Since students are always given preference if the clinic is crowded, a stutterer of college age should enroll for full-or part-time college work in an institution in these groups. Where this is impracticable, one should write to several institutions, learn their facilities and charges for handling outside cases, and choose the place which seems able to give the best service. Any of the clinics listed could suggest a list of helpful books and pamphlets to one who could not attend a clinic.

Another type of consultant which may be recommended is a good psychiatrist. This treatment is likely to be considerably more expensive than treatment at a clinic, but one may consult a psychiatrist at a public hospital where fees are lower. Many psychiatrists, however, have had no experience with stuttering, and only a man who has had successful experience with it should be considered. One should feel no hesitation in asking the amount of experience with stuttering a psychiatrist has had. Since it is expensive and is of value in only a very small proportion of cases, psychoanalysis cannot be generally recommended.

The general medical practitioner is of little aid. Although he will sincerely try to do what he can, his training has not fitted him to treat stuttering, and he can do little more than any other untrained individual.

The commercial stuttering "schools" and "institutes" are definitely not recommended. Their fees are exorbitant, ranging upwards from \$500 in some cases; their methods are generally unsound, being based on outworn or unscientific theories or on none at all; and their standards of ethics are deplorably low. Many of them guarantee cures, and almost all employ advertising designed to make the stutterer worried about his physical and mental condition, apprehensive about his future, and certain that people are avoiding him because of his speech. Such attitudes are definitely harmful

to the stutterer, and any adequate therapy must include much work designed to change them radically. The practice of getting business by spreading harmful ideas is detestable, but to make the situation worse, few commercial institutions do any mental hygiene work, and in no case is the work adequate. The mental condition of the stutterer when he leaves "cured" is worse than when he came, and it is small wonder that most of the institutes' "cures" relapse completely within a short time. Formerly, all commercial schools guaranteed cures, but many have recently stopped the practice. This reform, after years of unethical dealings, must be looked upon with suspicion.

The mysterious methods of the commercial institutions for which one pays \$300 to \$1,000 consist in speaking while swinging the arm or following an imaginary ball; breathing exercises; slow, drawling, or sing-song speech; and similar tricks.

Diagnosis or treatment by mail is impossible, but many commercial institutes attempt it. After a clinician has worked with a stutterer for weeks, he can adequately answer by mail many questions the stutterer might ask, but a diagnosis by mail is absurd, and there is yet no successful treatment which does not require the personal supervision of a competent clinician.

A number of honest and competent speech pathologists are in private practice, together with some who are neither. Space does not permit listing and considering these individually. Some of these men advertise; some have one or two persons associated with them and call themselves clinics or schools. Those institutions which in their advertising stress their years of "service" and the great number of stutterers they have cured are almost certainly quacks; those which do not emphasize these things, which do not try to incite shame about stuttering, and which make no implicit or explicit guarantee of recovery are likely to be trustworthy. Another rough rule is that the clinics and cor-

rectionists charging lower fees (\$100 or less) are likely to be more honest and able than those charging exorbitant prices. Most individual workers charge according to the time they spend with the case rather than a flat rate.

Many city school systems have speech correctionists. In some states, notably Wisconsin and Minnesota, such workers are employed even in small school systems all over the state. Such systematic work is very valuable, but with a large number of defectives to handle, the speech correctionist cannot give much attention to any single case. Severe stutterers should have private aid in addition to the attention of the public school speech correctionist.

Parents of stutterers should remember that it is far easier to correct the defect in children than in adults and should not unnecessarily delay taking stuttering children to a speech pathologist. The increasing public interest in speech and its improvement is most healthful, and as people come to know more about speech, they will demand greater training and skill in speech correctionists.



#### CLOTHING PRICES SKYROCKETING

Family Budgets Being Sorely Pressed

ROBERT T. PULLAR

RIOR to 1931, the average family expenditure for clothing was approximately fifteen per cent of family living costs. Prices declined during the five years which followed, families became smaller, and clothing costs declined to an average of twelve per cent of family expenditures. Price increases of raw materials and labor have been so sharp within recent months, however, that family clothing costs are rapidly heading back to fifteen per cent of expenditures again.

Budget studies during the past fifteen years indicate that as the income of a family increases the percentage of expenditure for clothing increases, and that it reaches a peak at the moderately well-to-do standard of living, from which it declines in the well-to-do and liberal standards of living. This is best described as a bow-shaped curve, varying from eight per cent in the bare subsistence level to twenty per cent at the moderately well-to-do level, and then down to about fifteen per cent for the liberal standard of living.

Since rising prices generally outstrip increases in family income during inflationary periods, such as the present, it is our purpose here to indicate where and to what extent clothing prices have changed, as well as how to bridge the newly created gap.

The full increase in costs already in effect in manufacturing and wholesaling circles has not yet been completely reflected in retail store prices. This fact still makes it possible to bridge the gap between income and cost of living. Most authorities agree that one good way to hedge against monetary inflation is to put money into tangible real goods. On this theory, the consumer can wisely fill in family clothing needs by buying now before retail prices fully reflect higher production costs, in so far as this is practical.

Family clothing needs are normally supplied by wool, cotton, rayon, and silk, for the most part. Price changes in these raw materials are of primary interest for determining the trend of retail ready-to-wear and piece goods prices. The major recent price changes in textile fibers have taken place since June, 1936. Within a year's time the following increases have occurred:

Fiber Wool	Price June 1936 . \$.85	Increase Per Pound \$.24	Per Cent Change +28
Cotton	115	.03	+26
Rayon	60	.03	+ 5
Silk	. 1.76	.25	+14

From this price data, it is clear that wool and cotton have advanced most sharply, while the price of rayon has been increased only slightly. When these price increases are brought through to the finished apparel and have had increased labor charges added, the wholesale price is drastically increased and the retail price is skyrocketed far beyond the average consumer's ability to pay. Retail stores have felt already a somewhat reduced unit volume of sales, although total dollar volume is greater than a year ago.

#### The Fiber Identification Problem

A very much awakened interest on the part of consumers in the identification of fibers used in textile fabrics is in evidence. Continued demand for such information is resulting in more of it being made available every day by manufacturers and retailers. Because of the sharp fiber price increases already noted, the problem of adulteration promises to be more important than ever. Concrete illustration of this will be given in a discussion of various types of apparel to be mentioned later.

Camel's hair varies widely in quality and has greatly increased in cost. Few coats offered as camel's hair are undiluted with wool. Most consumers find it difficult to understand why camel's hair coats can be purchased at various prices from \$20 to \$100 and up. The answer is that some are mixed with wool and others are made of coarse camel's hair, while the more expensive coats include varying percentages of fine, soft fibers. Consequently, values in a camel's hair coat are exceedingly hard to establish for the ordinary consumer as well as for a good many experts.

The production and consumption of viscose, acetate, and cuprammonium rayon have been increasing at a steady pace and are currently at a peak. Spun rayon (i.e., cut in short staple lengths) has grown tremendously in popularity and is being widely used by itself and in mixture with wool. The advantages of spun rayon are that it successfully imi-

tates the feeling and appearance of wool and is decidedly less expensive. It lacks many of the physical characteristics and cannot be used to best advantage as a substitute for some types of men's wear and women's wear wool fabrics.

Several department stores, in their own interests and as a concession to consumers, have recently adopted the requirement that all merchandise purchased by the store shall be fully described on the manufacturer's invoice as to exact content. This should make it possible for stores to pass on the information to consumers with a degree of certainty as to its correctness.

#### Recent Changes in Men's Clothing

Among the most important items of men's apparel are suits and overcoats which are normally made of woolen or worsted. The sizable increase in the cost of manufacturing wool fabrics has been reflected already in the prices of leading chain stores and other producers. The following changes selected at random are suggestive of what has happened.

	Recent	Newly Advanced	Per- centage
Manufacturer	Suit Price	Suit Price	Increase
Richman Bros. Co	\$22.50	\$24.50	9
Howard Clothes	19.75	22.50	14
Crawford Clothes	18.75	. 21.00	12
Cohen, Goldman			
"Worstedtex" Suit	37.50	40.00	7
Cohen, Goldman			
"Wintertex" Over-			
coat	35.00	42.50	21
Usual \$35 suit	35.00	40.00	14

In the case of some of these chain store prices, it is quite possible that fall prices will be advanced still further in view of the twelve per cent increase in wages effective on May 15. In view of this possibility, it might be well for consumers to make advance purchases, anticipating future price changes.

Among popular-priced suits, it is generally believed that \$16.75 is the lowest price for which an all virgin wool garment could possibly be purchased today. It is well to bear this in mind, especially since there is an increasing quantity of worsted and spun rayon mixtures being offered in suits to retail at and above this price level. There is also a tendency to keep suits in the \$35 to \$40 price brackets at or near that level by manipulating the cloth with spun rayon to compensate for higher cost wool. Spun rayon is usually mixed in worsted suitings in percentages varying from twenty to fifty per cent and, when blended with wool, is not easy for the usual consumer to detect in the fabric's feel.

The use of reworked wool for men's woolen suits and overcoats is very much on the increase. Shoddy dealers say that the year 1936 was the best one they have had in ten years and that the domestic wool rag market is continuing its peak activity during 1937. An average increase of fifty per cent in the price of wool rags during the past year is typical. This much higher price suggests the strong manufacturing demand which exists for shoddy. Detection of its presence in a fabric by the average consumer is best made by close examination of the uneven dye penetration so often found in this type of goods. This, however, is not an all-inclusive or sure test for reworked wool content.

Other items of men's apparel, such as hosiery, underwear, shirts, and neckwear are already ten per cent higher on the average than they were last year. In view of the recent sharp increase in cotton prices, it is quite likely that this ten per cent will be increased to fifteen per cent or more for comparable merchandise next winter.

Demand for leather has been so strong during recent months that raw material prices are from twenty-two to twenty-five per cent higher. This is reflected by a ten per cent increase in the retail price for shoes, so that the popular \$5 bracket, for instance, is now \$5.50. Further advances in the fall appear quite likely in view of the strong

world-wide market for leather. Bathing suit prices this season promise to be at least fifteen per cent greater than last year for a comparable garment.

In the present discussion of prices, the statements as to price increments are based upon a strictly comparable garment generally available last year. It is very necessary to realize that, if the current price appears to be the same as in the past, there has most assuredly been a change in the quality of raw materials or workmanship or both. There are very few exceptions to this statement, and the consumer will do well to be extremely cautious in noting quality, as well as price, changes.

#### Recent Changes in Women's Clothing

Again in the field of women's apparel, coats and suits as well as dresses bulk large in the female family clothing budget. To the unwary consumer, current prices of these articles of apparel appear to be fairly close to those prevailing last year. In all probability they are made with lower cost woolens and less labor so as to maintain the former price. The popular \$29.50 retail bracket still remains, but the same comparable quality cannot now be obtained for less than \$35 on the average. Differences in materials and workmanship are so carefully hidden that they cannot be realized in any casual examination. The former popular retail price of \$59.50 for a fur-trimmed, wool cloth coat may continue next fall, but a coat of comparable quality will retail for at least \$75.

The price of furs has been upward since April, 1935, and recent auctions have indicated that peak prices are being paid. As a result, a fur coat which sold for \$239 last fall will undoubtedly be priced at \$299 this year, representing a twenty-five per cent increase. There appears to be little doubt that fur coats will be more of a luxury than ever before. There are very few instances where dealers have low-cost furs on hand and, in view of the long-term rise in

prices, it would seem highly improbable that any genuine savings can be realized during summer and early fall sales. The prices of women's under apparel, primarily slips, panties, and brassieres, are very slightly higher than a year ago, largely because of the extensive use of rayon in them. It seems highly probable that these items will not be affected to any great extent by increases in raw material costs and that the main influence to which they will be subjected is that of manufacturing wage increases. These increases will be confined probably within ten per cent of current levels.

Wholesale prices of stockings have been advanced already

Wholesale prices of stockings have been advanced already to cover increased silk prices and shortly will be reflected in a twelve to fifteen per cent increase at retail. Shoe prices are definitely higher and promise to be more so next fall. Comment made in connection with men's shoes is applicable also in the case of women's.

#### Some Suggestions

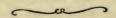
The problem of substitutes is always a difficult one, especially when it concerns textile fibers. There is a natural and desirable tendency to substitute rayon for silk or wool; or cotton for wool when existing price relationships get out of line. Since rayon prices are so favorable, having increased only five per cent so far, it is advantageous to buy apparel using this fiber so far as practical. Both rayon and silk prices have had small price increases, as has been pointed out. Wool and cotton prices are from twenty-five to thirty per cent higher, and successful substitution is not always easy or desirable in spite of their competitive price disadvantage. Wool, particularly, has an important place in outer apparel, and its substitution by other fibers of lower cost does not usually result in satisfactory economy.

The following list of apparel items, based on the writer's opinion, has been collected according to the most practical and serviceable fiber composition groups. It is suggested that these items be purchased when made of the indicated fiber because of the satisfaction, economy, and serviceability likely to be obtained in the long run. The list is in no way complete, and it is quite possible that various combinations of fibers could be made effective and desirable.

Wool	Cotton	Rayon	Silk
Men's suits Men's overcoats Women's coats Women's suits Rugs and carpets Bathing suits Blankets	Men's under- wear Women's dresses Sheets and pil- lowcases Men's shirts Curtains	Women's un- derwear Women's dresses Draperies	Women's un- derwear Hosiery Women's dresses Ties

One important conclusion to be drawn from this article seems obvious and that is: buy some things now to escape additional price increases and thereby hedge against inflation so far as possible. There is no sense, however, in anticipating needs for too long a period in advance and becoming overstocked, either in one's wardrobe or in home furnishings.

Another bit of good advice is to give particular attention to the quality and possible substitutions in an article. In a period of rising prices, normal values rapidly become distorted, and it is subsequently much more essential to know the important details of content and construction. Insist upon specific information not only as to fiber content, but also as to the quality of such items.



#### One Restaurant on Frozen Foods

What one chain of high class restaurants thinks of frozen foods is clearly indicated in a recent advertisement of the eight Longchamps restaurants in New York City. The advertisement read: "No concession to half measures—no substitutes for anything at Longchamps; only the genuine, the freshest, the finest. Frozen foods are unknown at Longchamps." Would that other restaurants were as thoughtful of their patrons' interests!

#### FOOD AND DRUG LEGISLATION

Summary of a Radio Discussion By A. J. CARLSON, M.D.

UR present federal pure foods and drugs law is inadequate for the protection of the health and the pocketbooks of the people. The present law, enacted some thirty years ago, does not cover false advertising; it is difficult to enforce and not aggressively favorable to honest business. Legislation aiming to correct these defects failed to pass in the last Congress.

A pure foods and drugs bill recently passed the Senate and is now before the House. The Senate Bill, as passed, does not correct all the defects in the present law, and contains some new provisions that further hamstring federal enforcement. Several foods and drugs bills are now before the House. Two strong lobbies appear to be active against the people in this fight for adequate foods and drugs legislation: the Patent Medicine interests, and the Federal Trade Commission. If the bill should pass, containing the emasculating Bailey and Borah Amendments, and giving control of false advertising of foods and drugs to the Federal Trade Commission instead of to the Foods and Drugs Administration, under the Federal Courts, the President should be asked to veto it, for it would be giving the people a stone instead of bread. To again compel our government, after thirty years' experience with it, to prove fraud in order to stop falsehood in the advertisement of foods and drugs, is practicing a fraud on the people. It should be repudiated by a veto, so that the fight for decent legislation can go on to a finish. We want the truth, and nothing but the truth in the advertising of foods and drugs. So does honest business. And we will fight till we get it. There is no partisan politics in this legislation. But owing to the complete control of this Congress by the Democratic Party, the responsibility for passing a satisfactory foods and drugs bill by Congress now rests squarely on that party.

#### GULLIBLE'S TRAVELS

May 24, 1937

Snocum, Coconut Grove, Pacificania.

Dear Snocum:

You must know by this time that I am carried away with my enthusiasm for this wonderful land and its customs. Every day seems to add a little something to my understanding, and the more I know the more I marvel at the cleverness of these Americans.

I have just learned about obsolescence, and have, in fact, made quite a study of it. I saw the word several times in print before I had the courage to ask about its meaning. It seemed, from the printed references to it, to be such a wonderful thing--yes, even to be a central principle in the American way of life--that I hesitated to show my ignorance by asking what the word meant. At last, however, when I found so many Americans practically worshipping obsolescence, I decided to find out what it meant.

Obsolescence is very easy to understand, once you have learned that American civilization is in so many respects the very reverse of our own in Coconut Grove. Briefly, obsolescence means that you throw whatever you possess

away and get a new one!

You know, of course, that in our simple and childish civilization in Coconut Grove, we use things until they wear out. That is all wrong, and it is one of the biggest reasons for our backwardness. No people can ever be hustling until they learn to throw things away while they are still new. If they keep things until they wear out, as we have always done in Coconut Grove, they have too much time on their hands and grow lazy lying around in

## GULLIBLE'S TRAVELS

CIVILIZATION MUST HAVE A GREAT JUNK HEAP JUNK HEAP OBSOLESCENCE CONSTITUTION

the sun on the beach or sitting under the trees engaging in idle chatter. Every truly progressive people must learn to throw things away very soon after they buy them, for only so can they keep themselves busy making new ones. And the more busy they are kept in making things, the more civilized they are.

Of course, it takes a good deal of careful education to teach obsolescence to a people and to keep them practicing it continually. Even Americans sometimes have a tendency to relapse into the old human habit of hanging on to a contraption for the simple reason that it is still useful. But in a truly great civilization, the reasons for keeping a contraption are not nearly so important as the reasons for throwing it away. These latter reasons must be impressed upon the minds of the people, and many agencies and techniques

are employed for this purpose.

I must give you some examples of this wonderful principle of progress. Let me begin with the simple illustration of a spark plug. The spark plug is an essential part of an automobile -- a little doo-dad which brings the electric current into contact with the gasoline and causes it to explode, thereby releasing the power which propels the automobile. Many motorists have found that their spark plugs will give satisfactory service for 30,000 miles or more. But this is distinctly bad for the spark plug business, and if a motorist should persist in his obstinacy of keeping his spark plugs just because they are still useful, he would be guilty of obstructing business. The spark plug factories must be kept busy in order to keep men and capital employed. The sellers of spark plugs, therefore, say to motorists: "Change all your spark plugs every 8,000 to 10,000 miles!" In this matter, science and technology, for which Americans have the greatest regard, become very useful, for the spark plug sellers inform the motorists that the automotive engineers of one of the

leading spark plug manufacturers have found out that great economy in gasoline is effected by this frequent changing of spark plugs. Science, indeed, is one of the best aids in teaching people to throw things away before they have worn out.

Then there is the thoughtless radio fan who keeps serviceable tubes in his set, greatly to the annoyance of the tube manufacturers and to the detriment of business progress. He, too, must be educated to throw his tubes away before they are worn out. If he calls in a radio service man to examine an ailing set, he will almost certainly receive sound advice in tube-junking. Not long ago, it was found that the radio service men were slow in educating radio set owners to junk their tubes fast enough to keep the manufacturers and their plants at capacity production. Something had to be done. The problem was solved by changing from glass to metal tubes and educating the public to the immense superiority of the metal tubes. In making the new metal tubes, it was thought well not to make them interchangeable with the old glass ones. In this manner, the set owner was persuaded to discard not only his obsolete glass tubes but his set as well.

Now and then it is found that the users of electric light bulbs are lax in discarding them and thoughtlessly continue to leave them in their sockets for no other reason than that they give light. Consequently, one of the largest manufacturers of electric light bulbs reminded housekeepers that "house cleaning time is a good time to replace all lamps." Even if the manufacturer was careless enough to make the lamps so that they continue to give light efficiently after the passing of house cleaning season, the housekeeper is asked to do her patriotic and obsolescent duty by throwing them away.

In the matter of clothing, Americans have achieved the maximum of obsolescence.

In this field, throwing things away is usually called "style change." American women never think of using their hats, shoes, coats, or dresses until they wear out. They discard them three or four times a year and get new ones. One of the cleverest ways of getting women to throw their clothes away long before they are worn out is to get some popular Hollywood movie actress or some wealthy socialite to wear a brand new style of hat, dress, or coat. A picture of her all decked out in these new togs is then printed in newspapers and magazines, and when other women see it, they understand at once that they must dress in the same fashion. I have before me, for example, a picture of a celebrated lady in "a new chapeau (hat to you, Snocum) of brown felt that is garnished with a profusion of small grosgrain ribbon bows in brown and chartreuse tones." Thousands of women will see this, and there will be no curbing their impulses.

In automobiles, obsolescence is achieved by such simple things as changing the shape of the hood or the design of the wheels. The engine under the newly shaped hood may be identical with the previous model, but thousands of Americans will proceed to get rid of a relatively new automobile in order to have the new hood and the new wheels.

Not many years ago America experienced what is called "a depression." Since we never had one of these in Coconut Grove, I must explain that a depression is a time of serious let-down in business with great attendant unemployment. Many outstanding Americans now believe that the answer to the problem of depression is to be found in obsolescence. Thus, an important executive of the great Filene store in Boston said to an audience of business men: "The creating of obsolescence is a prime necessity if we are to avoid stagnation in depression like that through which we are passing. To take up the slack we must

create obsolescence." You see, if people will learn to throw things away fast enough, there will always be a sufficient demand for new goods and, therefore, no more depression. Of course, if suits and shoes come to be worn only half as long as in 1929, Americans will be at least twice as prosperous as in that unhappy year.

I cannot begin to tell you about all the things which Americans are taught to throw away for the sake of business progress. A leading business magazine sums it up for me by saying: "In every field of human endeavor, whether it be in skyscrapers or pencils—locomotives or perfume atomizers—obsolescence marches on with increasing speed. More and more we buy to replace something which is obsolete; fewer and fewer of our still new but discarded possessions are actually worn out."

Impervious says that a system which makes so much of obsolescence should be carried to its logical conclusion where the <u>use</u> of a commodity is reduced to the vanishing point—where certificates of ownership, without delivery of the commodity, would be issued to theoretical consumers. Then, the entire population could concentrate on the main business of making and selling things, without the bother of pretending to use them. But, Impervious has an evil bent for ridiculing great ideas.

I blush with shame to think how our people in Coconut Grove have been holding on to their clothes and utensils until they are worn out. All the while, they might have been throwing them away at regular intervals of a few months and, thereby, keeping everybody busy making new things. Our progress would have been amazing if only we had known about obsolescence. I am chagrined to think that I ever rode about in an oxcart that belonged to my great-grandfather. In these four generations of our family, we should have had

at least eighty oxcarts, and would have had them if we had been as smart as the Americans. Wait until I get back and put a "super-tongued, bi-poise" oxcart on the market! Impervious is a thick-skulled creature who thinks it is more sensible for our people to keep their things until they are worn out, and to enjoy their leisure on the beaches and in the woods.

Americans are so enthusiastic about obsolescence that they are beginning to talk seriously about throwing everything away, even their traditions and political institutions. Millions of them now believe that they should discard their old men when they reach the age of seventy. In Europe, people are developing some new streamlined models of government which Americans enviously wish to copy, and so the people here have begun to speak of their old political institutions as belonging to the horse-and-buggy days, which is just another way of saying they should throw them away and import some of the new European streamlined models.

Every great civilization must have a great junk heap, and must learn to pile things upon it with a constantly accelerated speed.

Yours for a great junk heap in Coconut Grove,

Gullible

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## WHAT READERS HAVE TO SAY

With this issue of Consumers' Digest, Volume 1 is complete. Enthusiastic comments have been received from all over the United States and Canada. Here are a few from among the many:

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## CONSUMERS DIGES

Every purchase of a consumer's commodity is a consumer's vote for one of several candidates against the others. To vote wisely, you must know the qualifications of the candidates!



